March 4, 2022
SCS Project No. 16221022.00

Mr. Darryl Sparks
Compliance Manager
NAES Corporation
2161 Rattlesnake Road
Riesel, Texas 76682

Subject: Sandy Creek Energy Station
McLennan County, Texas
2021 Annual Groundwater Monitoring and Corrective Action Report Submittal

Dear Mr. Sparks:

SCS Engineers (SCS) is pleased to submit the 2021 Annual Groundwater Monitoring and Corrective Action Report to the Sandy Creek Energy Station (SCES), in accordance with Coal Combustion Residual Rule (CCR) 40 CFR Part §257.105(h)(1), and the site Groundwater Sampling and Analysis Plan (GWSAP), prepared by SCS, dated March 2, 2016.

Please contact Glen Collier at (936) 554-2178 if you have comments or require additional information.

Sincerely,

STATE OF TEXAS
BRETT J. DeVRIES
128061
LICENSED
PROFESSIONAL ENGINEER
3/4/22

STATE OF TEXAS
GLEN A. COLLIER
GEOLOGY
25
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2-4-22

Asher Boudreaux, G.I.T.
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Brett DeVries, Ph.D., P.E.
Project Engineer
SCS ENGINEERS

Glen Collier, P.G., C.P.G.
Project Director
SCS ENGINEERS

Attachment: 2021 Annual Groundwater Monitoring and Corrective Action Report

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Sandy Creek Energy Station
Coal Combustion Residual Waste Management Facility
McLennan County, Texas

Prepared For:

Sandy Creek Energy Station
2161 Rattlesnake Road
Riesel, Texas 76682

SCS ENGINEERS

SCS Project 16221022.00 | March 4, 2022

1901 Central Drive, Suite 550
Bedford, TX 76021
817-571-2288

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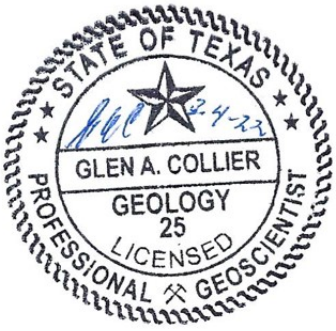


1.0 INTRODUCTION AND BACKGROUND

SCS Engineers (SCS) is submitting this 2021 Annual Groundwater Monitoring and Corrective Action Report for the Sandy Creek Energy Station (SCES). This report is submitted in accordance with 40 CFR §257.105(h)(6), 30 TAC 352.931, and the site Groundwater Sampling and Analysis Plan (GWSAP) prepared by SCS. This report includes results for two semiannual detection monitoring events, conducted in June 2021 and December 2021.

SCES is a pulverized coal-fired electric generation facility which operates a landfill for disposal of dry scrubber ash and bottom ash generated during the coal combustion process at the facility. Incidental wastes generated during the operation of the facility may also be disposed in the landfill, as described in the initial registration notification to TCEQ and the most recent version of the Operations Plan for the facility. The landfill is currently comprised of CCR disposal cells, Cells 1 and 2, which commenced receiving waste in early 2013 and October 2014, respectively. Additionally, a portion of Cell 3 (includes subcells 2A through 3D) was constructed in 2021. The approximate area of currently constructed Cells 1, 2, and 3 are 10.0, 14.3, and 10.3 acres, respectively.

Sampling of groundwater monitoring wells is conducted in accordance with 40 CFR §257.93 and the GWSAP. Groundwater monitoring of six wells must be performed (BW-1, MW-1, MW-2, MW-3, MW-4, MW-5; as depicted on Figure 1).

In accordance with 40 CFR §257.94(b), quarterly background monitoring must be performed for each well for eight consecutive quarters (i.e., eight independent samples collected for each well). The Appendix III and IV constituents monitored during the first eight quarters and the first semiannual detection monitoring event include 18 inorganic compounds, total dissolved solids, radium-226, and radium-228. The constituents monitored in subsequent events and during the December 2021 semiannual detection monitoring event include Appendix III constituents only. Monitoring wells MW-4 and MW-5 are currently in background monitoring. Initial background monitoring for monitoring wells MW-1, MW-2, MW-3, and BW-1 commenced in December 2015 and was completed in August 2017. MW-1, MW-2, MW-3, and BW-1 are currently in detection monitoring.

At the beginning of 2021, MW-1, 2, 3, and BW-1 were in detection monitoring status and MW-4 and MW-5 were in background monitoring. The observation of a potential SSI for boron in MW-3 was resolved through an alternate source demonstration (Appendix E) submitted along with the December 2021 Annual Groundwater Monitoring Report in accordance with 40 CFR §257.94(e)(2). Accordingly, the site remains in its detection monitoring program.

2.0 GROUNDWATER MONITORING SUMMARY

2.1 GROUNDWATER MONITORING SYSTEM

The current groundwater monitoring system at the SCES landfill consists of six wells (see Table 1 below). One (BW-1) is upgradient and five (MW-1, -2, -3, -4, & -5) are downgradient. Four wells are currently in detection monitoring and two are currently in background monitoring. Figure 1 shows monitoring well locations at SCES.

Table 1 – Sandy Creek Energy Station Groundwater Monitoring System

Well ID (U/D)[1]	Status	Top of Casing Elevation (ft msl)[2]	Well Depth (ft, bgs)[2]	Screen Interval (ft, bgs)[2]	Water Level Elevation (ft msl, on 12/15/2021)
BW-1 (U)	Detection	485.57	38.63	28.30-38.30	468.76
MW-1 (D)	Detection	465.87	34.23	23.90-33.90	455.13
MW-2 (D)	Detection	442.15	19.63	9.30-19.30	430.79
MW-3 (D)	Detection	430.06	16.23	5.98-15.98	420.96
MW-4 (D)	Background	436.91	30.3	20.00-30.00	425.18
MW-5 (D)	Background	454.52	35.3	25.00-35.00	432.30

1 (U) = upgradient, (D) = downgradient; 2 Top of Casing Elevation, Well Depth, and Screen Interval information obtained from Table 1 – Monitoring Well and Piezometer Construction Details and Groundwater Elevations prepared by Geosyntec Consultants, dated March 11, 2016 and the November 2020 Groundwater Monitoring Well Install Report prepared by SCS Engineers dated January 22, 2021; ft msl = feet above mean sea level; ft bgs = feet below ground surface

2.2 SUMMARY OF 2021 SAMPLING EVENTS

All sampling events followed the groundwater sampling and laboratory analysis procedures outlined in the GWSAP. A duplicate sample was collected from one well during each event for Quality Assurance & Quality Control (QA/QC) purposes. All monitoring wells were sampled and analyzed for 40 CFR §257 Appendix III constituents, in accordance with 40 CFR §257.94(a).

June 2021 – Semiannual Detection Monitoring Event

All six wells (MW-1, MW-2, MW-3, MW-4, MW-5, and BW-1) were purged and sampled on June 22, 2021, using disposable PVC bailers. Quality Assurance/Quality Control (QA/QC) samples obtained included one duplicate (DUP) collected at MW-5. Field forms and laboratory results for this event are provided in **Appendices A** & **B**, respectively, and summarized in **Table 2**. The Laboratory Review Checklist was reviewed by SCS, and the data was determined to conform to the most current National Environmental Laboratory Accreditation Conference (NELAC) standards.

December 2021 – Annual Detection Monitoring Event

All six wells (MW-1, MW-2, MW-3, MW-4, MW-5, and BW-1) were purged and sampled on December 15, 2021, using disposable PVC bailers. Quality Assurance/Quality Control (QA/QC) samples obtained included one duplicate (DUP) collected at MW-5. Field forms and laboratory results for this event are provided in **Appendices A** & **B**, respectively, and summarized in **Table 2**. The Laboratory Review Checklist was reviewed by SCS, and the data was determined to conform to the most current NELAC standards. A statistically significant increase (SSI) was indicated for boron in MW-3 during this event.

As outlined in the attached ASD for boron in MW-3, the SSI was not confirmed by comparing upgradient to downgradient data and calculating an interwell parametric prediction limit. SCS recommended the continuation of detection monitoring for the site due to the lack of confirmed SSIs for Appendix III constituents.

3.0 RESULTS AND STATISTICAL ANALYSIS

A summary of June 2021 and December 2021 laboratory results and statistical limits in each well–constituent pair is provided in **Table 2**. Time series graphs of Appendix III constituent concentrations are provided in **Appendix D**. Statistical limits were determined in accordance with 40 CFR §257.93(f-g) and the GWSAP using the software program Sanitas®. Statistical limits were determined in the 2017 Annual Groundwater Monitoring and Corrective Action report at the end of background monitoring for BW-1, MW-1, MW-2, and MW-3, and were presented using Shewhart-CUSUM control charts, non-parametric prediction limits, or parametric prediction limits as deemed appropriate by background data distributions.

Table 2 – Sandy Creek Energy Station 2021 Sampling Results and Statistical Limits

MW-ID	Constituent	Lab Results June 2021	Lab Results Dec 2021	Statistical Limit*
MW-1 (D)	Boron (mg/L)	1.1	1.16	2.6
	Calcium (mg/L)	510	534	1030
	Chloride (mg/L)	161	144	402
	pH at 25˚C	7.19	7.15	6.136 - 8.289
	Sulfate (mg/L)	2470	2360	3402
	TDS (mg/L)	3830	3940	6765
	Fluoride (mg/L)	<0.20	0.271	0.4
MW-2 (D)	Boron (mg/L)	1.83	2.02	2.4
	Calcium (mg/L)	704	656	874.4
	Chloride (mg/L)	2780	2350	3336
	pH at 25˚C	6.82	6.83	6.7 - 7.5
	Sulfate (mg/L)	3370	2970	4635
	TDS (mg/L)	9500	8780	23969
	Fluoride (mg/L)	<0.20	0.254	2.831
MW-3 (D)	Boron (mg/L)	1.02	***1.24***	1.2
	Calcium (mg/L)	469	518	688.1
	Chloride (mg/L)	300	318	606.9
	pH at 25˚C	6.77	6.54	5.71 - 8.09
	Sulfate (mg/L)	3170	2970	4447
	TDS (mg/L)	5080	5500	9375
	Fluoride (mg/L)	<0.20	ND	2.201

MW-ID	Constituent	Lab Results June 2021	Lab Results Dec 2021	Statistical Limit*
BW-1 (U)	Boron (mg/L)	3.39	3.36	6.787
	Calcium (mg/L)	607	616	723.7
	Chloride (mg/L)	1290	1140	1540
	pH at 25˚C	7.05	6.92	6.8 - 9.5
	Sulfate (mg/L)	3170	2820	3884
	TDS (mg/L)	6560	6380	10119
	Fluoride (mg/L)	0.512	ND	2.356

*Calculated in 2017 Annual Report at the end of background monitoring
(U)=upgradient, (D)=downgradient
Bolded italicized value indicates that constituent exceeded intrawell statistical limit

An unconfirmed SSI was determined for boron in MW-3 (December 2021). In accordance with 40 CFR §257.94(e), an alternate source demonstration (ASD) is provided in **Appendix E**.

4.0 RECOMMENDATIONS

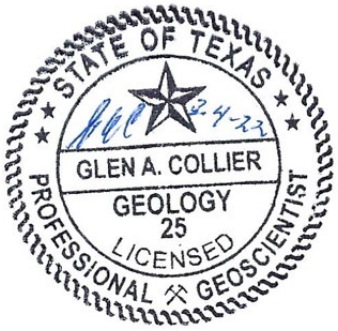
As outlined in the attached ASD for boron in MW-3, no confirmed SSIs were identified for any Appendix III constituents during 2021 detection monitoring at the SCES. SCS recommends that the facility remain in semiannual detection monitoring, in accordance with 40 CFR §257.94. Since the detection of boron falls below the interwell statistical limit, this is evidence that the detection is representative of background data. Due to the lack of confirmed SSIs for Appendix III constituents during 2021 detection monitoring, the facility will continue monitoring for all constituents listed in 40 CFR §257 Appendix III during semiannual groundwater monitoring events, in accordance with 40 CFR §257.94(a). The Appendix IV constituent list will be analyzed if any confirmed statistical exceedances of the Appendix III list are indicated in future events. The next planned groundwater monitoring event is a semiannual detection monitoring event scheduled for May 2022.

5.0 GROUNDWATER FLOW RATE AND DIRECTION CALCULATIONS

In accordance with 40 CFR Part §257.93(c), the groundwater flow rate and direction in the uppermost aquifer in the area of the existing groundwater monitoring wells were calculated.

Flow Rate Calculation Using December 2021 Data

$Va = \frac{KI}{7.5N}$ (Driscoll, 1986, Groundwater and Wells)



Where:

Va = Actual Velocity of Groundwater Flow (ft/day)
K = Hydraulic Conductivity (gpd/ft^2)
I = Hydraulic Gradient (ft/ft)
N = Effective Porosity (%)

Then:

K = 2.0 x 10^{-4} cm/sec (geometric mean hydraulic conductivity obtained from slug tests performed by Geosyntec in 2010)

Find K equivalent in units of gpd/ft^2:

(1 cm/sec = 21,200 gallons/day/ft^2)

2.0 x 10^{-4} cm/sec x 21,200 gallons/day/ft^2 = 4.24 gpd/ft^2

Find I: BW-1 elevation – MW-3 elevation: 468.76 ft – 420.96 ft = 0.0203 ft/ft
distance between wells: 2,350 ft

I = 0.0203 ft/ft
N = 6% (representative effective porosity for clay from Morris and Johnson, 1967)

Therefore:

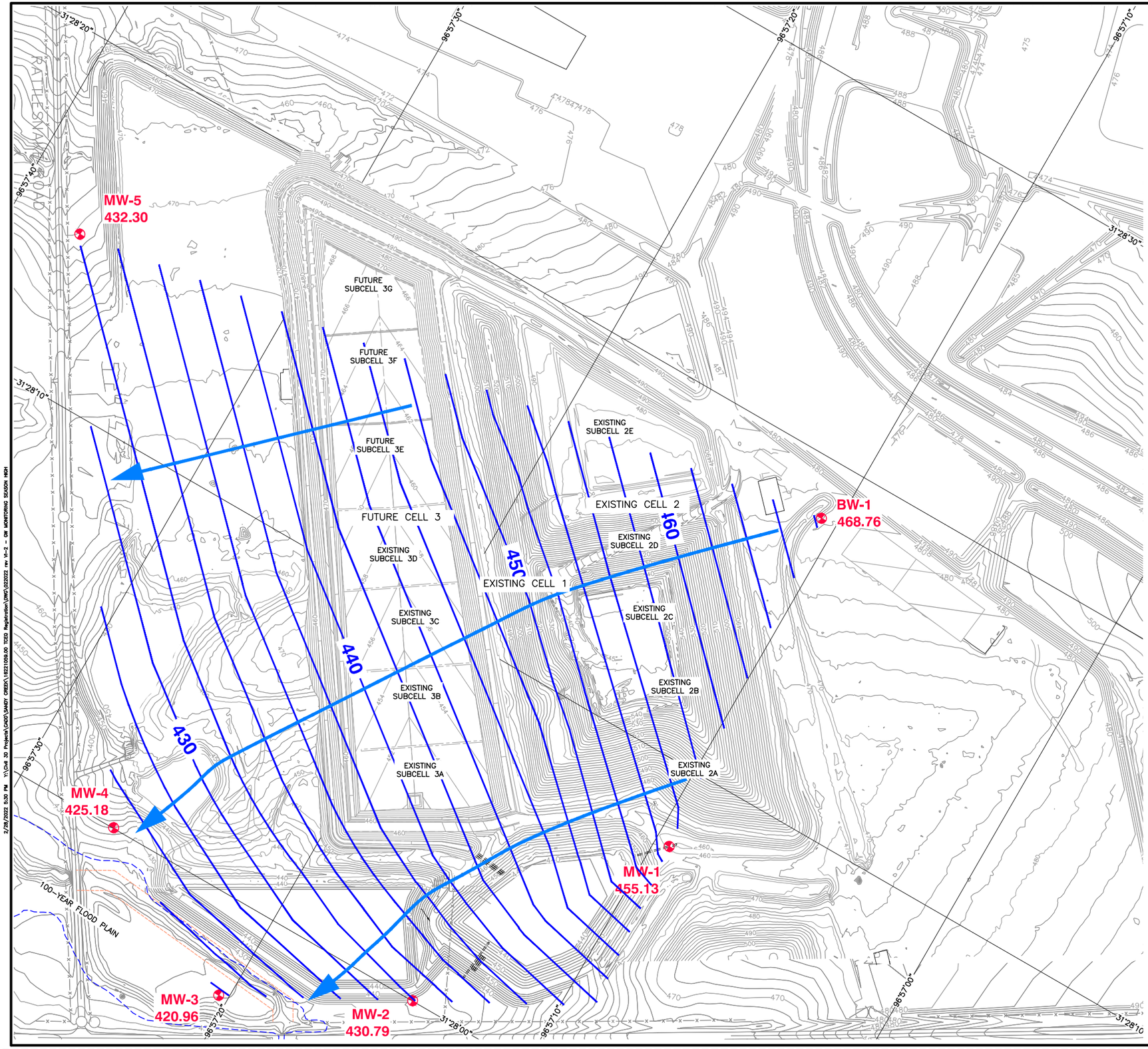
$Va = \frac{4.24 \text{ gpd/ft}^2 \times (0.0203 \text{ ft/ft})}{7.5\ (0.06)} = 0.191$ ft/day

(0.191 ft/day)(365 days/year) = **70 ft/year**

Conclusion

The December 2021 site groundwater flow rate is calculated to be **70 ft/year**. The gradient was measured using BW-1 and MW-3. The December 2021 groundwater flow direction is to the west-southwest. The calculated groundwater flow rate and direction are consistent with conditions previously observed at the site. See **Figure 1** for details, provided in accordance with 40 CFR Part §257.93(c).

Figure 1. Groundwater Contour Map



N

0 150 300

SCALE IN FEET

LEGEND

- EXISTING/PROPOSED CONTOURS (450)
- PLANT PROPERTY BOUNDARY
- LANDFILL REGISTRATION BOUNDARY
- REGISTERED LIMITS OF WASTE
- EXISTING CELL BOUNDARY
- FUTURE CELL BOUNDARY
- LATITUDE/LONGITUDE LINES (96°57'10")
- 100-YEAR FLOOD PLAIN
- MW-1 EXISTING MONITORING WELL
- 450 GROUNDWATER CONTOUR
- 450 PROPOSED/EXISTING EXCAVATION CONTOURS (SEE NOTE 3)

NOTES:

1. THE EXISTING CONTOUR MAP SHOWN ON THIS DRAWING WAS COMPILED FROM AN AERIAL SURVEY CONDUCTED BY DALLAS AERIAL SURVEY, INC. IN NOVEMBER, 2020 AND EXISTING TOPOGRAPHY BY BLACK & VEATCH CORPORATION DATED APRIL 2006. STATE PLANE COORDINATE GRID CORRESPONDS TO TEXAS STATE PLAN COORDINATE SYSTEM, TEXAS CENTRAL ZONE (4203), NORTH AMERICAN DATUM 83 (NAD83) 1983.
2. ELEVATION ARE IN FEET ABOVE MEAN SEA LEVEL (FT, MSL) AS DEFINED BY THE USGS NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1988. STATE PLANE COORDINATE GRID CORRESPONDS TO TEXAS STATE COORDINATE SYSTEM, TEXAS CENTRAL ZONE (4203), NORTH AMERICAN DATUM OF 1983 (NAD-83).
5. EXISTING FEATURES IN SUBCELLS 3A THROUGH 3D ARE EXISTING AND SUBCELLS 3E THROUGH 3G ARE PROPOSED AT THE TIME OF THIS REGISTRATION APPLICATION DEVELOPMENT.

STATE OF TEXAS
BRETT J. DeVRIES
128061
LICENSED
PROFESSIONAL ENGINEER
Brett DeVries 3/4/22

STATE OF TEXAS
3-4-22
GLEN A. COLLIER
GEOLOGY
25
LICENSED
PROFESSIONAL GEOSCIENTIST

FOR REGISTRATION PURPOSES ONLY

REV	DATE	DESCRIPTION	BY

DRAWING TITLE
GROUNDWATER CONTOUR MAP

PROJECT TITLE
2021 SECOND SEMI-ANNUAL REPORT
DECEMBER 2021 SAMPLING EVENT

CLIENT
NAES CORPORATION
2161 RATTLESNAKE ROAD
RIESEL, TEXAS 76682

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
1901 CENTRAL DRIVE, SUITE 550, BEDFORD, TX 76021
PH (817) 571-2288 FAX NO. (817) 571-2186

PROJ. NO. 162181457.00 | DWN. BY: JG | CHK. BY: AB | QA/QC BY: GG | APP. BY: GG | DSN. BY: AB

CADD FILE: 022022 REV Vt-2 - GW MONITORING SEASON HIGH

DATE: 12/2021

SCALE: AS SHOWN

DRAWING NO. **1**

2/28/2022 5:30 PM Y:\Civil 3D Projects\CAD\SANDY CREEK\162210590.00 TCEQ Registration\DWG\022022 rev Vt-2 - GW MONITORING SEASON HIGH

Appendix A

2021 Groundwater Monitoring Field Forms

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: BW-1
3. Date of sampling: 6/22/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/22/2015

Most recent previous sampling: 11/10/2020
Date of water level measurements: 6/22/2021
Datum reference point: Top of Casing
Datum elevation*: 485.57
Depth to water(below datum)*: 17.20
4. Water level elevation*: 468.37

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ☐ yes ■ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH	6.91	
15. Spec. cond.	7.54	16. ■ mS/cm
17. Temp.	23.86	18. ☐ F or ■ C (check one)
19. Turbidity	165	20. ■ NTU

Laboratory:

21. Name: Pace Analytical Allen Laboratory Phone: (972)-727-1123
Address: 3714, 400 W Bethany Dr #190, Allen, TX 75013

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-1
3. Date of sampling: 6/22/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/21/2015

Most recent previous sampling: 11/10/2020
Date of water level measurements: 6/22/2021
Datum reference point: Top of Casing
Datum elevation*: 465.87
Depth to water(below datum)*: 10.58
4. Water level elevation*: 455.29

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 2.1
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ■ yes ☐ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH	7.48	
15. Spec. cond.	4.32	16. ■ mS/cm
17. Temp.	23.14	18. ☐ F or ■ C (check one)
19. Turbidity	47.8	20. ■ NTU

Laboratory:

21. Name: Pace Analytical Allen Laboratory
Phone: (972)-727-1123
Address: 3714, 400 W Bethany Dr #190, Allen, TX 75013

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-2
3. Date of sampling: 6/22/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/23/2015

Most recent previous sampling: 11/10/2020
Date of water level measurements: 6/22/2021
Datum reference point: Top of Casing
Datum elevation*: 442.15
Depth to water(below datum)*: 10.27
4. Water level elevation*: 431.88

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 2.3
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ■ yes ☐ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH 7.15
15. Spec. cond. 11.3
16. ■ mS/cm
17. Temp. 23.70
18. ☐ F or ■ C (check one)
19. Turbidity 14.6
20. ■ NTU

Laboratory:

21. Name Pace Analytical Allen Laboratory Phone: (972)-727-1123
Address: 3714, 400 W Bethany Dr #190, Allen, TX 75013

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-3
3. Date of sampling: 6/22/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/1/2010

Most recent previous sampling: 11/10/2020
Date of water level measurements: 6/22/2021
Datum reference point: Top of Casing
Datum elevation*: 430.06
Depth to water(below datum)*: 8.60
4. Water level elevation*: 421.46

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ☐ yes ■ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH	6.83	
15. Spec. cond.	6.06	16. ■ mS/cm
17. Temp.	23.80	18. ☐ F or ■ C (check one)
19. Turbidity	26.6	20. ■ NTU

Laboratory:

21. Name: Pace Analytical Allen Laboratory
Phone: (972)-727-1123
Address: 3714, 400 W Bethany Dr #190, Allen, TX 75013

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-4
3. Date of sampling: 6/22/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 11/2/2020

Most recent previous sampling: 3/24/2021
Date of water level measurements: 6/22/2021
Datum reference point: Top of Casing
Datum elevation*: 436.91
Depth to water(below datum)*: 9.39
4. Water level elevation*: 427.52

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 2.4
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ■ yes ☐ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Background
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Quarterly
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH	7.57	
15. Spec. cond.	7.43	16. ■ mS/cm
17. Temp.	24.24	18. ☐ F or ■ C (check one)
19. Turbidity	19.5	20. ■ NTU

Laboratory:

21. Name: Pace Analytical Allen Laboratory
Phone: (972)-727-1123
Address: 3714, 400 W Bethany Dr #190, Allen, TX 75013

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-5
3. Date of sampling: 6/22/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 11/2/2020

Most recent previous sampling: 3/24/2021
Date of water level measurements: 6/22/2021
Datum reference point: Top of Casing
Datum elevation*: 454.52
Depth to water(below datum)*: 22.23
4. Water level elevation*: 432.29

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ☐ yes ■ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Background
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Quarterly
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH	7.47	
15. Spec. cond.	8.36	16. ■ mS/cm
17. Temp.	24.73	18. ☐ F or ■ C (check one)
19. Turbidity	40.8	20. ■ NTU

Laboratory:

21. Name: Pace Analytical Allen Laboratory
Phone: (972)-727-1123
Address: 3714, 400 W Bethany Dr #190, Allen, TX 75013

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: DUP
3. Date of sampling: 6/22/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: N/A
Installation date: N/A

Most recent previous sampling: N/A
Date of water level measurements: N/A
Datum reference point: Top of Casing
Datum elevation*: N/A
Depth to water(below datum)*: N/A
4. Water level elevation*: N/A

5. Purging/Sampling method: N/A (Enter bailer or pump)
Were low-flow methods used? ☐ yes ☐ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: N/A
7. Was the well dry before purging? ☐ yes ☐ no (check one)
8. Was the well dry after purging? ☐ yes ☐ no (check one)
9. How long before sampling? N/A
10. Unit of measure? N/A (Enter value as days, hours, or mins.)

11. Sample event: Background
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Quarterly
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Duplicate
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH N/A
15. Spec. cond. N/A
16. ☐ mS/cm
17. Temp. N/A
18. ☐ F or ☐ C (check one)
19. Turbidity N/A
20. ☐ NTU

Laboratory:

21. Name Pace Analytical Allen Laboratory Phone: (972)-727-1123
Address: 3714, 400 W Bethany Dr #190, Allen, TX 75013

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: BW-1
3. Date of sampling: 12/15/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/22/2015

Most recent previous sampling: 6/22/2021
Date of water level measurements: 12/15/2021
Datum reference point: Top of Casing
Datum elevation*: 485.57
Depth to water(below datum)*: 16.81
4. Water level elevation*: 468.76

5. Purging/Sampling method: Bailer (Enter bailer or pump)
   Were low-flow methods used? ☐ yes ■ no (check one)
   If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ☐ yes ■ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
    - Background - Corrective Action
    - Detection - Other
    - Assessment
12. Sample schedule: Semi-Annual
    - Quarterly - Fourth Year
    - Semi-Annual - Other
    - Annual
13. Sample type: Regular
    - Regular - Split
    - Duplicate - Other
    - Resample

Field Measurements:

14. pH	6.65		
15. Spec. cond.	8.31	16. ■ mS/cm	
17. Temp.	23.89	18. ☐ F or ■ C	(check one)
19. Turbidity	122	20. ■ NTU	

Laboratory:

21. Name: ALS Environmental Phone: (281) 530 5656
    Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-1
3. Date of sampling: 12/15/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/21/2015

Most recent previous sampling: 6/22/2021
Date of water level measurements: 12/15/2021
Datum reference point: Top of Casing
Datum elevation*: 465.87
Depth to water(below datum)*: 10.74
4. Water level elevation*: 455.13

5. Purging/Sampling method: Bailer (Enter bailer or pump)
   Were low-flow methods used? ☐ yes ■ no (check one)
   If yes, what volume was purged? N/A gal.
6. Well volumes purged: 2.0
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ■ yes ☐ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
    - Background - Corrective Action
    - Detection - Other
    - Assessment
12. Sample schedule: Semi-Annual
    - Quarterly - Fourth Year
    - Semi-Annual - Other
    - Annual
13. Sample type: Regular
    - Regular - Split
    - Duplicate - Other
    - Resample

Field Measurements:

14. pH	6.93		
15. Spec. cond.	4.45	16. ■ mS/cm	
17. Temp.	23.72	18. ☐ F or ■ C	(check one)
19. Turbidity	9.1	20. ■ NTU	

Laboratory:

21. Name: ALS Environmental Phone: (281) 530 5656
    Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-2
3. Date of sampling: 12/15/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/23/2015

Most recent previous sampling: 6/22/2021
Date of water level measurements: 12/15/2021
Datum reference point: Top of Casing
Datum elevation*: 442.15
Depth to water(below datum)*: 11.36
4. Water level elevation*: 430.79

5. Purging/Sampling method: Bailer (Enter bailer or pump)
   Were low-flow methods used? ☐ yes ■ no (check one)
   If yes, what volume was purged? N/A gal.
6. Well volumes purged: 2.2
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ■ yes ☐ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
    - Background - Corrective Action
    - Detection - Other
    - Assessment
12. Sample schedule: Semi-Annual
    - Quarterly - Fourth Year
    - Semi-Annual - Other
    - Annual
13. Sample type: Regular
    - Regular - Split
    - Duplicate - Other
    - Resample

Field Measurements:

14. pH	6.74		
15. Spec. cond.	12	16. ■ mS/cm	
17. Temp.	23.80	18. ☐ F or ■ C	(check one)
19. Turbidity	1.5	20. ■ NTU	

Laboratory:

21. Name: ALS Environmental Phone: (281) 530 5656
    Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-3
3. Date of sampling: 12/15/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/1/2010

Most recent previous sampling: 6/22/2021
Date of water level measurements: 12/15/2021
Datum reference point: Top of Casing
Datum elevation*: 430.06
Depth to water(below datum)*: 9.10
4. Water level elevation*: 420.96

5. Purging/Sampling method: Bailer (Enter bailer or pump)
   Were low-flow methods used? ☐ yes ■ no (check one)
   If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ☐ yes ■ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
    - Background - Corrective Action
    - Detection - Other
    - Assessment
12. Sample schedule: Semi-Annual
    - Quarterly - Fourth Year
    - Semi-Annual - Other
    - Annual
13. Sample type: Regular
    - Regular - Split
    - Duplicate - Other
    - Resample

Field Measurements:

14. pH	6.66		
15. Spec. cond.	6.71	16. ■ mS/cm	
17. Temp.	23.16	18. ☐ F or ■ C	(check one)
19. Turbidity	0	20. ■ NTU	

Laboratory:

21. Name: ALS Environmental Phone: (281) 530 5656
    Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-4
3. Date of sampling: 12/15/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 11/2/2020

Most recent previous sampling: 9/17/2021
Date of water level measurements: 12/15/2021
Datum reference point: Top of Casing
Datum elevation*: 436.91
Depth to water(below datum)*: 11.73
4. Water level elevation*: 425.18

5. Purging/Sampling method: Bailer (Enter bailer or pump)
   Were low-flow methods used? ☐ yes ■ no (check one)
   If yes, what volume was purged? N/A gal.
6. Well volumes purged: 2.7
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ■ yes ☐ no (check one)
9. How long before sampling? 1
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Background
    - Background - Corrective Action
    - Detection - Other
    - Assessment
12. Sample schedule: Quarterly
    - Quarterly - Fourth Year
    - Semi-Annual - Other
    - Annual
13. Sample type: Regular
    - Regular - Split
    - Duplicate - Other
    - Resample

Field Measurements:

14. pH	7.19		
15. Spec. cond.	8.17	16. ■ mS/cm	
17. Temp.	22.90	18. ☐ F or ■ C	(check one)
19. Turbidity	21	20. ■ NTU	

Laboratory:

21. Name: ALS Environmental Phone: (281) 530 5656
    Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-5
3. Date of sampling: 12/15/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 11/2/2020

Most recent previous sampling: 9/17/2021
Date of water level measurements: 12/15/2021
Datum reference point: Top of Casing
Datum elevation*: 454.52
Depth to water(below datum)*: 22.22
4. Water level elevation*: 432.30

5. Purging/Sampling method: Bailer (Enter bailer or pump)
   Were low-flow methods used? ☐ yes ■ no (check one)
   If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ☐ yes ■ no (check one)
9. How long before sampling? 1
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Background
    - Background - Corrective Action
    - Detection - Other
    - Assessment
12. Sample schedule: Quarterly
    - Quarterly - Fourth Year
    - Semi-Annual - Other
    - Annual
13. Sample type: Regular
    - Regular - Split
    - Duplicate - Other
    - Resample

Field Measurements:

14. pH	7.10		
15. Spec. cond.	9.4	16. ■ mS/cm	
17. Temp.	23.05	18. ☐ F or ■ C	(check one)
19. Turbidity	10	20. ■ NTU	

Laboratory:

21. Name: ALS Environmental Phone: (281) 530 5656
    Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: DUP
3. Date of sampling: 12/15/2021

Name of sampler: Asher Boudreaux
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: N/A
Installation date: N/A

Most recent previous sampling: N/A
Date of water level measurements: N/A
Datum reference point: Top of Casing
Datum elevation*: N/A
Depth to water(below datum)*: N/A
4. Water level elevation*: N/A

5. Purging/Sampling method: N/A (Enter bailer or pump)
   Were low-flow methods used? ☐ yes ☐ no (check one)
   If yes, what volume was purged? N/A gal.
6. Well volumes purged: N/A
7. Was the well dry before purging? ☐ yes ☐ no (check one)
8. Was the well dry after purging? ☐ yes ☐ no (check one)
9. How long before sampling? N/A
10. Unit of measure? N/A (Enter value as days, hours, or mins.)

11. Sample event: Background
    - Background - Corrective Action
    - Detection - Other
    - Assessment
12. Sample schedule: Quarterly
    - Quarterly - Fourth Year
    - Semi-Annual - Other
    - Annual
13. Sample type: Duplicate
    - Regular - Split
    - Duplicate - Other
    - Resample

Field Measurements:

14. pH	N/A		
15. Spec. cond.	N/A	16. ☐ mS/cm	
17. Temp.	N/A	18. ☐ F or ☐ C	(check one)
19. Turbidity	N/A	20. ☐ NTU	

Laboratory:

21. Name: ALS Environmental Phone: (281) 530 5656
    Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Appendix B

2021 Laboratory Reports with Chain of Custody Forms

ANALYTICAL REPORT

July 01, 2021

SCS Engineers

Sample Delivery Group:	L1370058
Samples Received:	06/23/2021
Project Number:	
Description:	Sandy Creek Groundwater

Report To: Asher Boudreaux
1901 Central Drive, Ste 550
Bedford, TX 76021

Entire Report Reviewed By: Johnny A. Mitchell

John Mitchell
Project Manager

Pace Analytical Services, LLC -Dallas
400 W. Bethany Drive Suite 190 Allen, TX 75013 972-727-1123 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

BW-1 L1370058-01 GW

Collected by: Asher Boudreaux | Collected date/time: 06/22/21 15:15 | Received date/time: 06/23/21 14:55

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540C	WG1694415	1	06/24/21 10:19	06/24/21 11:53	QQT	Allen, TX
Wet Chemistry by Method 9040C	WG1694478	1	06/24/21 12:07	06/24/21 12:07	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	1	06/29/21 15:25	06/29/21 15:25	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	100	06/29/21 15:43	06/29/21 15:43	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	1000	06/29/21 16:01	06/29/21 16:01	JAP	Allen, TX
Metals (ICP) by Method 6010	WG1695178	1	06/28/21 10:32	06/28/21 19:50	CDP	Allen, TX

MW-1 L1370058-02 GW

Collected by: Asher Boudreaux | Collected date/time: 06/22/21 15:25 | Received date/time: 06/23/21 14:55

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540C	WG1694415	1	06/24/21 10:19	06/24/21 11:53	QQT	Allen, TX
Wet Chemistry by Method 9040C	WG1694478	1	06/24/21 12:07	06/24/21 12:07	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	1	06/29/21 16:18	06/29/21 16:18	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	1000	06/29/21 16:54	06/29/21 16:54	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	20	06/30/21 03:01	06/30/21 03:01	JAP	Allen, TX
Metals (ICP) by Method 6010	WG1695178	1	06/28/21 10:32	06/28/21 19:54	CDP	Allen, TX

MW-2 L1370058-03 GW

Collected by: Asher Boudreaux | Collected date/time: 06/22/21 16:10 | Received date/time: 06/23/21 14:55

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540C	WG1694415	1	06/24/21 10:19	06/24/21 11:53	QQT	Allen, TX
Wet Chemistry by Method 9040C	WG1694478	1	06/24/21 12:07	06/24/21 12:07	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	1	06/29/21 17:12	06/29/21 17:12	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	1000	06/29/21 18:05	06/29/21 18:05	JAP	Allen, TX
Metals (ICP) by Method 6010	WG1695178	1	06/28/21 10:32	06/28/21 19:58	CDP	Allen, TX

MW-3 L1370058-04 GW

Collected by: Asher Boudreaux | Collected date/time: 06/22/21 16:45 | Received date/time: 06/23/21 14:55

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540C	WG1694415	1	06/24/21 10:19	06/24/21 11:53	QQT	Allen, TX
Wet Chemistry by Method 9040C	WG1694478	1	06/24/21 12:07	06/24/21 12:07	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	1	06/29/21 19:34	06/29/21 19:34	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	50	06/29/21 20:28	06/29/21 20:28	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	500	06/29/21 21:22	06/29/21 21:22	JAP	Allen, TX
Metals (ICP) by Method 6010	WG1695178	1	06/28/21 10:32	06/28/21 20:02	CDP	Allen, TX

MW-4 L1370058-05 GW

Collected by: Asher Boudreaux | Collected date/time: 06/22/21 16:20 | Received date/time: 06/23/21 14:55

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540C	WG1694415	1	06/24/21 10:19	06/24/21 11:53	QQT	Allen, TX
Wet Chemistry by Method 9040C	WG1694478	1	06/24/21 12:07	06/24/21 12:07	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	1	06/29/21 22:51	06/29/21 22:51	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	100	06/29/21 23:09	06/29/21 23:09	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	500	06/29/21 23:27	06/29/21 23:27	JAP	Allen, TX
Metals (ICP) by Method 6010	WG1695178	1	06/28/21 10:32	06/28/21 20:06	CDP	Allen, TX

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-5 L1370058-06 GW

Collected by: Asher Boudreaux
Collected date/time: 06/22/21 15:40
Received date/time: 06/23/21 14:55

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540C	WG1694415	1	06/24/21 10:19	06/24/21 11:53	QQT	Allen, TX
Wet Chemistry by Method 9040C	WG1694478	1	06/24/21 12:07	06/24/21 12:07	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	1	06/29/21 23:45	06/29/21 23:45	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	200	06/30/21 00:02	06/30/21 00:02	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	500	06/30/21 00:20	06/30/21 00:20	JAP	Allen, TX
Metals (ICP) by Method 6010	WG1695178	1	06/28/21 10:32	06/28/21 20:10	CDP	Allen, TX

DUP L1370058-07 GW

Collected by: Asher Boudreaux
Collected date/time: 06/22/21 15:15
Received date/time: 06/23/21 14:55

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540C	WG1694415	1	06/24/21 10:19	06/24/21 11:53	QQT	Allen, TX
Wet Chemistry by Method 9040C	WG1694478	1	06/24/21 12:07	06/24/21 12:07	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	1	06/30/21 00:38	06/30/21 00:38	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	100	06/30/21 00:56	06/30/21 00:56	JAP	Allen, TX
Wet Chemistry by Method 9056A	WG1695273	500	06/30/21 01:14	06/30/21 01:14	JAP	Allen, TX
Metals (ICP) by Method 6010	WG1695178	1	06/28/21 10:32	06/28/21 20:21	CDP	Allen, TX

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Mitchell
Project Manager

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Total Dissolved Solids	6560		500	1	06/24/2021 11:53	WG1694415

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.05	T8	1	06/24/2021 12:07	WG1694478

Sample Narrative:

L1370058-01 WG1694478: 7.05 at 16.9C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Chloride	1290000		80000	100	06/29/2021 15:43	WG1695273
Fluoride	512		500	1	06/29/2021 15:25	WG1695273
Sulfate	3170000		700000	1000	06/29/2021 16:01	WG1695273

Metals (ICP) by Method 6010

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Boron	3390		100	1	06/28/2021 19:50	WG1695178
Calcium	607000	V	1000	1	06/28/2021 19:50	WG1695178

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Total Dissolved Solids	3830		71.5	1	06/24/2021 11:53	WG1694415

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.19	T8	1	06/24/2021 12:07	WG1694478

Sample Narrative:

L1370058-02 WG1694478: 7.19 at 20.2C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Chloride	161000		16000	20	06/30/2021 03:01	WG1695273
Fluoride	ND		500	1	06/29/2021 16:18	WG1695273
Sulfate	2470000		700000	1000	06/29/2021 16:54	WG1695273

Metals (ICP) by Method 6010

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Boron	1100		100	1	06/28/2021 19:54	WG1695178
Calcium	510000		1000	1	06/28/2021 19:54	WG1695178

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Total Dissolved Solids	9500		33.3	1	06/24/2021 11:53	WG1694415

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	6.82	T8	1	06/24/2021 12:07	WG1694478

Sample Narrative:

L1370058-03 WG1694478: 6.82 at 22.7C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Chloride	2780000		800000	1000	06/29/2021 18:05	WG1695273
Fluoride	ND	J5	500	1	06/29/2021 17:12	WG1695273
Sulfate	3370000		700000	1000	06/29/2021 18:05	WG1695273

Metals (ICP) by Method 6010

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Boron	1830		100	1	06/28/2021 19:58	WG1695178
Calcium	704000		1000	1	06/28/2021 19:58	WG1695178

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Total Dissolved Solids	5080		250	1	06/24/2021 11:53	WG1694415

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	6.77	T8	1	06/24/2021 12:07	WG1694478

Sample Narrative:

L1370058-04 WG1694478: 6.77 at 22.3C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Chloride	300000		40000	50	06/29/2021 20:28	WG1695273
Fluoride	ND		500	1	06/29/2021 19:34	WG1695273
Sulfate	3170000		350000	500	06/29/2021 21:22	WG1695273

Metals (ICP) by Method 6010

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Boron	1020		100	1	06/28/2021 20:02	WG1695178
Calcium	469000		1000	1	06/28/2021 20:02	WG1695178

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Total Dissolved Solids	5830		250	1	06/24/2021 11:53	WG1694415

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.23	T8	1	06/24/2021 12:07	WG1694478

Sample Narrative:

L1370058-05 WG1694478: 7.23 at 21.4C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Chloride	1100000		80000	100	06/29/2021 23:09	WG1695273
Fluoride	ND		500	1	06/29/2021 22:51	WG1695273
Sulfate	3080000		350000	500	06/29/2021 23:27	WG1695273

Metals (ICP) by Method 6010

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Boron	4940		100	1	06/28/2021 20:06	WG1695178
Calcium	418000		1000	1	06/28/2021 20:06	WG1695178

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Total Dissolved Solids	7960		500	1	06/24/2021 11:53	WG1694415

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.23	T8	1	06/24/2021 12:07	WG1694478

Sample Narrative:

L1370058-06 WG1694478: 7.23 at 20.5C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Chloride	1290000		160000	200	06/30/2021 00:02	WG1695273
Fluoride	ND		500	1	06/29/2021 23:45	WG1695273
Sulfate	3570000		350000	500	06/30/2021 00:20	WG1695273

Metals (ICP) by Method 6010

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Boron	2600		100	1	06/28/2021 20:10	WG1695178
Calcium	466000		1000	1	06/28/2021 20:10	WG1695178

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Total Dissolved Solids	7440		500	1	06/24/2021 11:53	WG1694415

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.24	T8	1	06/24/2021 12:07	WG1694478

Sample Narrative:

L1370058-07 WG1694478: 7.24 at 20.9C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Chloride	1300000		80000	100	06/30/2021 00:56	WG1695273
Fluoride	624		500	1	06/30/2021 00:38	WG1695273
Sulfate	3530000		350000	500	06/30/2021 01:14	WG1695273

Metals (ICP) by Method 6010

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Boron	2640		100	1	06/28/2021 20:21	WG1695178
Calcium	516000		1000	1	06/28/2021 20:21	WG1695178

Method Blank (MB)

(MB) R3671954-1 06/24/21 11:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Total Dissolved Solids	ND		25.0	25.0

L1370058-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1370058-01 06/24/21 11:53 • (DUP) R3671954-3 06/24/21 11:53

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Dissolved Solids	6560	6680	1	1.81		5

L1370058-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1370058-02 06/24/21 11:53 • (DUP) R3671954-4 06/24/21 11:53

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Dissolved Solids	3830	3910	1	2.15		5

Laboratory Control Sample (LCS)

(LCS) R3671954-2 06/24/21 11:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Dissolved Solids	250	285	114	85.0-115	

L1370058-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1370058-01 06/24/21 12:07 • (DUP) R3671453-2 06/24/21 12:07

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.05	7.05	1	0.000		20

Sample Narrative:

OS: 7.05 at 16.9C

DUP: 7.05 at 17.2C

Laboratory Control Sample (LCS)

(LCS) R3671453-1 06/24/21 12:07

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	6.00	6.02	100	99.0-101	

Sample Narrative:

LCS: 6.02 at 19.5C

Method Blank (MB)

(MB) R3673865-1 06/29/21 11:43

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	143	J	54.1	800
Fluoride	ND		198	500
Sulfate	ND		199	700

Laboratory Control Sample (LCS)

(LCS) R3673865-2 06/29/21 12:00

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	5000	5060	101	80.0-120	
Fluoride	5000	5350	107	80.0-120	
Sulfate	5000	5370	107	80.0-120	

L1370058-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1370058-03 06/29/21 17:12 • (MS) R3673865-3 06/29/21 17:30 • (MSD) R3673865-4 06/29/21 17:47

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5000	ND	6240	6090	125	122	1	80.0-120	J5	J5	2.35	20

L1370058-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1370058-03 06/29/21 18:05 • (MS) R3673865-5 06/29/21 18:59 • (MSD) R3673865-6 06/29/21 19:17

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	5000000	2780000	8030000	7940000	105	103	1000	80.0-120			1.03	20
Sulfate	5000000	3370000	8750000	8580000	108	104	1000	80.0-120			1.93	20

L1370058-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1370058-04 06/29/21 19:34 • (MS) R3673865-7 06/29/21 19:52 • (MSD) R3673865-8 06/29/21 20:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5000	ND	5000	5070	100	101	1	80.0-120			1.31	20

L1370058-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1370058-04 06/29/21 20:28 • (MS) R3673865-9 06/29/21 20:46 • (MSD) R3673865-10 06/29/21 21:04

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	250000	300000	569000	566000	108	107	50	80.0-120			0.544	20

L1370058-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1370058-04 06/29/21 21:22 • (MS) R3673865-11 06/29/21 21:39 • (MSD) R3673865-12 06/29/21 22:33

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	2500000	3170000	5750000	5730000	103	102	500	80.0-120			0.309	20

Method Blank (MB)

(MB) R3673392-1 06/28/21 19:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Boron	ND		17.4	100
Calcium	ND		92.5	1000

Laboratory Control Sample (LCS)

(LCS) R3673392-2 06/28/21 19:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	1060	106	80.0-120	
Calcium	10000	10400	104	80.0-120	

L1370058-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1370058-01 06/28/21 19:50 • (MS) R3673392-3 06/28/21 19:43 • (MSD) R3673392-4 06/28/21 19:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	3390	4510	4480	111	108	1	75.0-125			0.683	20
Calcium	10000	607000	586000	597000	0.000	0.000	1	75.0-125	V	V	1.76	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical Services, LLC -Dallas 400 W. Bethany Drive Suite 190 Allen, TX 75013

Arkansas	88-0647	Kansas	E10388
Florida	E871118	Texas	T104704232-20-32
Iowa	408	Oklahoma	8727
Louisiana	30686		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
SCS Engineers

1901 Central Drive, Ste 550
Bedford, TX 76021

Billing Information:
Krystal Kuntz
1901 Central Drive #550
Bedford, TX 760215872

Pres Chk

Report to: **Asher Boudreaux**

P-201

Email To: aboudreaux@scsengineers.com;

Project Description: **Sandy Creek Groundwater**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **817-571-2288**

Client Project #

Lab Project # **DSSCSERBTX-ABDREUX1**

Collected by (print): Asher Boudreaux

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y X

Rush? (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Metals 250mlHDPE HNO3	WetChem 500mlHDPE-NoPres
BW-1		GW		6/22/21	15:15	X	X
MW-1		GW		6/22/21	15:25	X	X
MW-2		GW		6/22/21	16:10	X	X
MW-3		GW		6/22/21	16:45	X	X
MW-4		GW		6/22/21	16:20	X	X
MW-5		GW		6/22/21	15:40	X	X
DUP		GW		6/22/21	15:15	X	X

Chain of Custody Page 8 of 8

Pace Analytical®

400 W. Bethany Drive Suite 190 Allen, TX 75013

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 157058

Table #

Acctnum: **DSSCSERBTX**

Template: **T189662**

Prelogin: **P855022**

PM: **3652 - Ricky Lopez**

PB:

Shipped Via: **FedEX Ground**

Remarks | Sample # (lab only)

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: METALS 6010 B,CA

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	__NP __Y __N
COC Signed/Accurate:	__Y __N
Bottles arrive intact:	__Y __N
Correct bottles used:	__Y __N
Sufficient volume sent:	__Y __N
If Applicable	
VOA Zero Headspace:	__Y __N
Preservation Correct/Checked:	__Y __N
RAD Screen <0.5 mR/hr:	__Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	6/23/21	14:55	6/23/21 1455	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: / If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time: / Hold: / Condition: NCF / OK

Pace Analytical	Document Name: Sample Condition Upon Receipt	Document Revised: 7/27/20 Page 1 of 1
	Document No.: F-DAL-C-001-rev.14	Issuing Authority: Pace Dallas Quality Office

Sample Condition Upon Receipt

☑Dallas ☐Ft Worth ☐Corpus Christi ☐Austin

Client Name: S&S Engineers Project Work order (place label): 1570058

Courier: FedEX ☐ UPS ☐ USPS ☑ Client ☐ ESO ☐ PACE ☐ Other: _____

Tracking #: _____

Custody Seal on Cooler/Box: Yes ☑ No ☐

Received on ice: Wet ☑ Blue ☐ No ice ☐

Receiving Lab 1 Thermometer Used: IR-15 Cooler Temp °C: 2.6 (Recorded) 0.2 (Correction Factor) 2.4 (Actual)

Receiving Lab 2 Thermometer Used: _____ Cooler Temp °C: _____ (Recorded) _____ (Correction Factor) _____ (Actual)

Temperature should be above freezing to 6°C unless collected same day as receipt in which evidence of cooling is acceptable

Triage Person: AP Date: 6/23/24

Chain of Custody relinquished	Yes ✓ No ☐
Sampler name & signature on COC	Yes ☐ No ✓
Short HT analyses (<72 hrs)	Yes ☐ No ✓

Login Person: CIC Date: 6/23/24

Sufficient Volume received	Yes ✓ No ☐
Correct Container used	Yes ✓ No ☐
Container Intact	Yes ✓ No ☐
Sample pH Acceptable pH Strips: 6003003 Residual Chlorine Present Cl Strips: _____ Sulfide Present Lead Acetate Strips: _____	Yes ✓ No ☐ NA ☐ Yes ☐ No ☐ NA ~~☐~~ Yes ☐ No ☐ NA ~~☐~~
Are soil samples (volatiles, TPH) received in 5035A Kits (not applicable to TCLP VOA or PST Program TPH)	Yes ☐ No ☐ NA ✓
Unpreserved 5035A soil frozen within 48 hrs	Yes ☐ No ☐ NA ✓
Headspace in VOA (>6mm)	Yes ☐ No ☐ NA ✓
Project sampled in USDA Regulated Area outside of Texas State Sampled: _____	Yes ☐ No ☐ NA ✓
Non-Conformance(s):	Yes ☐ No ✓

Labeling Person (if different than log-in) _____ Date: _____

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

February 02, 2022

Glen Collier
SCS Engineers
1901 Central Drive
Suite 550
Bedford, TX 76021

Work Order: **HS21121074**

Laboratory Results for: **Sandy Creek**

Dear Glen Collier,

ALS Environmental received 5 sample(s) on Dec 17, 2021 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

Generated By: DANE.WACASEY
Dane J. Wacasey

Client: SCS Engineers
Project: Sandy Creek
Work Order: HS21121074

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21121074-01	BW-1	Groundwater		15-Dec-2021 15:35	17-Dec-2021 10:50	☐
HS21121074-02	MW-1	Groundwater		15-Dec-2021 15:45	17-Dec-2021 10:50	☐
HS21121074-03	MW-2	Groundwater		15-Dec-2021 16:25	17-Dec-2021 10:50	☐
HS21121074-04	MW-3	Groundwater		15-Dec-2021 16:55	17-Dec-2021 10:50	☐
HS21121074-05	DUP	Groundwater		15-Dec-2021 15:35	17-Dec-2021 10:50	☐

Revision: 1

Client: SCS Engineers
Project: Sandy Creek
Work Order: HS21121074

CASE NARRATIVE

Work Order Comments

• This report was revised February 2, 2022 in order to remove results for barium and include results for boron.

Work Order Comments

• Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier.

The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

Metals by Method SW6020A

Batch ID: 174108

Sample ID: HS21121056-21MS

• MS and MSD are for an unrelated sample (Barium,Calcium)

Wet Chemistry by Method SW9056

Batch ID: R398737

Sample ID: HS21121083-02MS

• MS is for an unrelated sample

WetChemistry by Method SW9056

Batch ID: R398737

Sample ID: BW-1 (HS21121074-01)

• Dilution due to high concentration of SO4

Sample ID: DUP (HS21121074-05)

• Dilution due to high concentration of SO4

Sample ID: MW-1 (HS21121074-02)

• Dilution due to high concentration of SO4

Sample ID: MW-2 (HS21121074-03)

• Dilution due to high concentration of CL & SO4

Sample ID: MW-3 (HS21121074-04)

• Dilution due to high concentration of SO4

WetChemistry by Method M2540C

Batch ID: R398309

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: SCS Engineers
Project: Sandy Creek
Work Order: HS21121074

CASE NARRATIVE

WetChemistry by Method SW9040C

Batch ID: R397983

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: SCS Engineers
Project: Sandy Creek
Sample ID: BW-1
Collection Date: 15-Dec-2021 15:35

ANALYTICAL REPORT
WorkOrder:HS21121074
Lab ID:HS21121074-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Jan-2022		Analyst: JHD
Boron	**3.36**		**0.0550**	**0.100**	**mg/L**	5	03-Jan-2022 20:02
Calcium	**616**		**0.170**	**2.50**	**mg/L**	5	03-Jan-2022 20:02
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: JAC
Total Dissolved Solids (Residue, Filterable)	**6,380**		**5.00**	**10.0**	**mg/L**	1	22-Dec-2021 14:00
PH BY SW9040C		**Method:SW9040C**					Analyst: CWG
pH	**6.92**	H	**0.100**	**0.100**	**pH Units**	1	20-Dec-2021 12:40
Temp Deg C @pH	**20.6**	H	**0**	**0**	**DEG C**	1	20-Dec-2021 12:40
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Chloride	**1,140**		**10.0**	**25.0**	**mg/L**	50	30-Dec-2021 19:19
Fluoride	U		0.250	0.500	mg/L	5	30-Dec-2021 19:11
Sulfate	**2,820**		**10.0**	**25.0**	**mg/L**	50	30-Dec-2021 19:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 1

Client: SCS Engineers
Project: Sandy Creek
Sample ID: MW-1
Collection Date: 15-Dec-2021 15:45

ANALYTICAL REPORT
WorkOrder:HS21121074
Lab ID:HS21121074-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Jan-2022		Analyst: JHD
Boron	**1.16**		**0.0550**	**0.100**	**mg/L**	5	03-Jan-2022 20:04
Calcium	**534**		**0.170**	**2.50**	**mg/L**	5	03-Jan-2022 20:04
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: JAC
Total Dissolved Solids (Residue, Filterable)	**3,940**		**5.00**	**10.0**	**mg/L**	1	22-Dec-2021 14:00
PH BY SW9040C		**Method:SW9040C**					Analyst: CWG
pH	**7.15**	H	**0.100**	**0.100**	**pH Units**	1	20-Dec-2021 12:40
Temp Deg C @pH	**20.5**	H	**0**	**0**	**DEG C**	1	20-Dec-2021 12:40
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Chloride	**144**		**1.00**	**2.50**	**mg/L**	5	30-Dec-2021 19:26
Fluoride	**0.271**	J	**0.250**	**0.500**	**mg/L**	5	30-Dec-2021 19:26
Sulfate	**2,360**		**10.0**	**25.0**	**mg/L**	50	30-Dec-2021 19:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 1

Client: SCS Engineers
Project: Sandy Creek
Sample ID: MW-2
Collection Date: 15-Dec-2021 16:25

ANALYTICAL REPORT
WorkOrder:HS21121074
Lab ID:HS21121074-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Jan-2022		Analyst: JHD
Boron	**2.02**		**0.0550**	**0.100**	**mg/L**	5	03-Jan-2022 20:06
Calcium	**656**		**0.170**	**2.50**	**mg/L**	5	03-Jan-2022 20:06
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: JAC
Total Dissolved Solids (Residue, Filterable)	**8,780**		**5.00**	**10.0**	**mg/L**	1	22-Dec-2021 14:00
PH BY SW9040C		**Method:SW9040C**					Analyst: CWG
pH	**6.83**	H	**0.100**	**0.100**	**pH Units**	1	20-Dec-2021 12:40
Temp Deg C @pH	**20.8**	H	**0**	**0**	**DEG C**	1	20-Dec-2021 12:40
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Chloride	**2,350**		**10.0**	**25.0**	**mg/L**	50	30-Dec-2021 19:49
Fluoride	**0.254**	J	**0.250**	**0.500**	**mg/L**	5	30-Dec-2021 19:41
Sulfate	**2,970**		**10.0**	**25.0**	**mg/L**	50	30-Dec-2021 19:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 1

Client: SCS Engineers
Project: Sandy Creek
Sample ID: MW-3
Collection Date: 15-Dec-2021 16:55

ANALYTICAL REPORT
WorkOrder:HS21121074
Lab ID:HS21121074-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Jan-2022		Analyst: JHD
Boron	**1.24**		**0.0550**	**0.100**	**mg/L**	5	03-Jan-2022 20:08
Calcium	**518**		**0.170**	**2.50**	**mg/L**	5	03-Jan-2022 20:08
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: JAC
Total Dissolved Solids (Residue, Filterable)	**5,500**		**5.00**	**10.0**	**mg/L**	1	22-Dec-2021 14:00
PH BY SW9040C		**Method:SW9040C**					Analyst: CWG
pH	**6.54**	H	**0.100**	**0.100**	**pH Units**	1	20-Dec-2021 12:40
Temp Deg C @pH	**20.7**	H	**0**	**0**	**DEG C**	1	20-Dec-2021 12:40
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Chloride	**318**		**1.00**	**2.50**	**mg/L**	5	30-Dec-2021 19:56
Fluoride	U		0.250	0.500	mg/L	5	30-Dec-2021 19:56
Sulfate	**2,970**		**10.0**	**25.0**	**mg/L**	50	30-Dec-2021 20:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 1

Client: SCS Engineers
Project: Sandy Creek
Sample ID: DUP
Collection Date: 15-Dec-2021 15:35

ANALYTICAL REPORT
WorkOrder:HS21121074
Lab ID:HS21121074-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 03-Jan-2022		Analyst: JHD
Boron	**1.18**		**0.0550**	**0.100**	**mg/L**	5	03-Jan-2022 20:10
Calcium	**543**		**0.170**	**2.50**	**mg/L**	5	03-Jan-2022 20:10
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: JAC
Total Dissolved Solids (Residue, Filterable)	**3,970**		**5.00**	**10.0**	**mg/L**	1	22-Dec-2021 14:00
PH BY SW9040C		**Method:SW9040C**					Analyst: CWG
pH	**7.08**	H	**0.100**	**0.100**	**pH Units**	1	20-Dec-2021 12:40
Temp Deg C @pH	**20.4**	H	**0**	**0**	**DEG C**	1	20-Dec-2021 12:40
ANIONS BY SW9056A		**Method:SW9056**					Analyst: YP
Chloride	**155**		**1.00**	**2.50**	**mg/L**	5	30-Dec-2021 20:26
Fluoride	**0.274**	J	**0.250**	**0.500**	**mg/L**	5	30-Dec-2021 20:26
Sulfate	**2,510**		**10.0**	**25.0**	**mg/L**	50	30-Dec-2021 20:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 1

Weight / Prep Log

Client: SCS Engineers
Project: Sandy Creek
WorkOrder: HS21121074

Batch ID: 174108 **Start Date:** 03 Jan 2022 11:00 **End Date:** 03 Jan 2022 15:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21121074-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS21121074-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS21121074-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS21121074-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS21121074-05		10 (mL)	10 (mL)	1	120 plastic HNO3

Revision: 1

Client: SCS Engineers
Project: Sandy Creek
WorkOrder: HS21121074

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 174108 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Groundwater	
HS21121074-01	BW-1	15 Dec 2021 15:35		03 Jan 2022 15:00	04 Jan 2022 12:33	1
HS21121074-01	BW-1	15 Dec 2021 15:35		03 Jan 2022 15:00	03 Jan 2022 20:02	5
HS21121074-02	MW-1	15 Dec 2021 15:45		03 Jan 2022 15:00	04 Jan 2022 12:35	1
HS21121074-02	MW-1	15 Dec 2021 15:45		03 Jan 2022 15:00	03 Jan 2022 20:04	5
HS21121074-03	MW-2	15 Dec 2021 16:25		03 Jan 2022 15:00	04 Jan 2022 12:37	1
HS21121074-03	MW-2	15 Dec 2021 16:25		03 Jan 2022 15:00	03 Jan 2022 20:06	5
HS21121074-04	MW-3	15 Dec 2021 16:55		03 Jan 2022 15:00	04 Jan 2022 12:39	1
HS21121074-04	MW-3	15 Dec 2021 16:55		03 Jan 2022 15:00	03 Jan 2022 20:08	5
HS21121074-05	DUP	15 Dec 2021 15:35		03 Jan 2022 15:00	04 Jan 2022 12:41	1
HS21121074-05	DUP	15 Dec 2021 15:35		03 Jan 2022 15:00	03 Jan 2022 20:10	5
Batch ID: R397983 (0)	**Test Name :** PH BY SW9040C				**Matrix:** Groundwater	
HS21121074-01	BW-1	15 Dec 2021 15:35			20 Dec 2021 12:40	1
HS21121074-02	MW-1	15 Dec 2021 15:45			20 Dec 2021 12:40	1
HS21121074-03	MW-2	15 Dec 2021 16:25			20 Dec 2021 12:40	1
HS21121074-04	MW-3	15 Dec 2021 16:55			20 Dec 2021 12:40	1
HS21121074-05	DUP	15 Dec 2021 15:35			20 Dec 2021 12:40	1
Batch ID: R398309 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Groundwater	
HS21121074-01	BW-1	15 Dec 2021 15:35			22 Dec 2021 14:00	1
HS21121074-02	MW-1	15 Dec 2021 15:45			22 Dec 2021 14:00	1
HS21121074-03	MW-2	15 Dec 2021 16:25			22 Dec 2021 14:00	1
HS21121074-04	MW-3	15 Dec 2021 16:55			22 Dec 2021 14:00	1
HS21121074-05	DUP	15 Dec 2021 15:35			22 Dec 2021 14:00	1
Batch ID: R398737 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Groundwater	
HS21121074-01	BW-1	15 Dec 2021 15:35			30 Dec 2021 19:19	50
HS21121074-01	BW-1	15 Dec 2021 15:35			30 Dec 2021 19:11	5
HS21121074-02	MW-1	15 Dec 2021 15:45			30 Dec 2021 19:34	50
HS21121074-02	MW-1	15 Dec 2021 15:45			30 Dec 2021 19:26	5
HS21121074-03	MW-2	15 Dec 2021 16:25			30 Dec 2021 19:49	50
HS21121074-03	MW-2	15 Dec 2021 16:25			30 Dec 2021 19:41	5
HS21121074-04	MW-3	15 Dec 2021 16:55			30 Dec 2021 20:19	50
HS21121074-04	MW-3	15 Dec 2021 16:55			30 Dec 2021 19:56	5
HS21121074-05	DUP	15 Dec 2021 15:35			30 Dec 2021 20:34	50
HS21121074-05	DUP	15 Dec 2021 15:35			30 Dec 2021 20:26	5

Revision: 1

Client: SCS Engineers
Project: Sandy Creek
WorkOrder: HS21121074

QC BATCH REPORT

Batch ID: 174108 (0) **Instrument: ICPMS05** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-174108** Units: **mg/L** Analysis Date: **03-Jan-2022 18:08**
Client ID: Run ID: **ICPMS05_398788** SeqNo: **6450186** PrepDate: **03-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	U	0.500								

LCS Sample ID: **LCS-174108** Units: **mg/L** Analysis Date: **03-Jan-2022 18:10**
Client ID: Run ID: **ICPMS05_398788** SeqNo: **6450187** PrepDate: **03-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	4.933	0.500	5	0	98.7	80 - 120				

MS Sample ID: **HS21121056-21MS** Units: **mg/L** Analysis Date: **03-Jan-2022 18:17**
Client ID: Run ID: **ICPMS05_398788** SeqNo: **6450190** PrepDate: **03-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	91.42	0.500	5	84.42	140	80 - 120				SO

MSD Sample ID: **HS21121056-21MSD** Units: **mg/L** Analysis Date: **03-Jan-2022 18:19**
Client ID: Run ID: **ICPMS05_398788** SeqNo: **6450191** PrepDate: **03-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	90.85	0.500	5	84.42	129	80 - 120	91.42	0.624	20	SO

PDS Sample ID: **HS21121056-21PDS** Units: **mg/L** Analysis Date: **03-Jan-2022 18:21**
Client ID: Run ID: **ICPMS05_398788** SeqNo: **6450192** PrepDate: **03-Jan-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	95.03	0.500	10	84.42	106	75 - 125				O

SD Sample ID: **HS21121056-21SD** Units: **mg/L** Analysis Date: **03-Jan-2022 18:14**
Client ID: Run ID: **ICPMS05_398788** SeqNo: **6450189** PrepDate: **03-Jan-2022** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Calcium	88.64	2.50					84.42	4.99	10	

The following samples were analyzed in this batch: HS21121074-01 HS21121074-02 HS21121074-03 HS21121074-04 HS21121074-05

Revision: 1

Client: SCS Engineers
Project: Sandy Creek
WorkOrder: HS21121074

QC BATCH REPORT

Batch ID: **R397983 (0)** **Instrument:** **WetChem_HS** **Method:** **PH BY SW9040C**

DUP Sample ID: **HS21121105-02DUP** Units: **pH Units** Analysis Date: **20-Dec-2021 12:40**
Client ID: Run ID: **WetChem_HS_397983** SeqNo: **6430290** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.01	0.100					6.99	0.286	10	
Temp Deg C @pH	21.4	0					21.4	0	10	

The following samples were analyzed in this batch: HS21121074-01 HS21121074-02 HS21121074-03 HS21121074-04 HS21121074-05

Revision: 1

Client: SCS Engineers
Project: Sandy Creek
WorkOrder: HS21121074

QC BATCH REPORT

Batch ID: R398309 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WBLK-122121** Units: **mg/L** Analysis Date: **22-Dec-2021 14:00**
Client ID: Run ID: **Balance1_398309** SeqNo: **6438326** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	U	10.0								

LCS Sample ID: **WLCS-122121** Units: **mg/L** Analysis Date: **22-Dec-2021 14:00**
Client ID: Run ID: **Balance1_398309** SeqNo: **6438327** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1034	10.0	1000	0	103	85 - 115				

DUP Sample ID: **HS21121074-02DUP** Units: **mg/L** Analysis Date: **22-Dec-2021 14:00**
Client ID: **MW-1** Run ID: **Balance1_398309** SeqNo: **6438320** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	3946	10.0					3940	0.152	5	

DUP Sample ID: **HS21120967-01DUP** Units: **mg/L** Analysis Date: **22-Dec-2021 14:00**
Client ID: Run ID: **Balance1_398309** SeqNo: **6438314** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1804	10.0					1808	0.221	5	

The following samples were analyzed in this batch: HS21121074-01 HS21121074-02 HS21121074-03 HS21121074-04 HS21121074-05

Revision: 1

Client: SCS Engineers
Project: Sandy Creek
WorkOrder: HS21121074

QC BATCH REPORT

Batch ID: R398737 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY SW9056A

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **30-Dec-2021 23:20**
Client ID: Run ID: **ICS-Integrion_398737** SeqNo: **6449016** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
Fluoride	U	0.100								
Sulfate	U	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **30-Dec-2021 23:27**
Client ID: Run ID: **ICS-Integrion_398737** SeqNo: **6449017** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.46	0.500	20	0	97.3	80 - 120				
Fluoride	4.184	0.100	4	0	105	80 - 120				
Sulfate	19.64	0.500	20	0	98.2	80 - 120				

MS Sample ID: **HS21121083-02MS** Units: **mg/L** Analysis Date: **30-Dec-2021 22:35**
Client ID: Run ID: **ICS-Integrion_398737** SeqNo: **6449010** PrepDate: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	838.8	10.0	200	688.8	75.0	80 - 120				S
Fluoride	43.4	2.00	40	0.618	107	80 - 120				
Sulfate	335.6	10.0	200	139	98.3	80 - 120				

MSD Sample ID: **HS21121083-02MSD** Units: **mg/L** Analysis Date: **30-Dec-2021 22:42**
Client ID: Run ID: **ICS-Integrion_398737** SeqNo: **6449011** PrepDate: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	852.2	10.0	200	688.8	81.7	80 - 120	838.8	1.58	20	
Fluoride	44.07	2.00	40	0.618	109	80 - 120	43.4	1.53	20	
Sulfate	341.5	10.0	200	139	101	80 - 120	335.6	1.73	20	

The following samples were analyzed in this batch: HS21121074-01 HS21121074-02 HS21121074-03 HS21121074-04 HS21121074-05

Revision: 1

Client: SCS Engineers
Project: Sandy Creek
WorkOrder: **HS21121074**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Florida	E87611-33	30-Jun-2022
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2021-2022	30-Jun-2022
Texas	T104704231-21-28	30-Apr-2022

Sample Receipt Checklist

Work Order ID: HS21121074 **Date/Time Received:** **17-Dec-2021 10:50**

Client Name: SCS ENGINEERS - Bedford TX **Received by:** **Paresh M. Giga**

Completed By: */S/ Pablo Marinez* 17-Dec-2021 15:44 **Reviewed by:** _____ _____

eSignature Date/Time eSignature Date/Time

Matrices: **WATER** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:255142
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.6°C UC/C	IR 31	
Cooler(s)/Kit(s):	47515		
Date/Time sample(s) sent to storage:	12/17/21 15:45		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070

Chain of Custody Form

Page ____ of ____

COC ID: 255142

HS21121074

SCS Engineers
Sandy Creek

ALS Project Manager:

Customer Information		Project Information	
Purchase Order	Sandy Creek	Project Name	Sandy Creek
Work Order		Project Number	~~16221023.00 Task 3~~ 16221022.00 Task 2
Company Name	SCS Engineers	Bill To Company	SCS Engineers
Send Report To	Glen Collier	Invoice Attn	Krystal Kuntz - A/P
Address	1901 Central Drive Suite 550	Address	1901 Central Drive Suite 550
City/State/Zip	Bedford, TX 76021	City/State/Zip	Bedford TX 76021
Phone	(817) 571-2288	Phone	(817) 571-2288
Fax		Fax	
e-Mail Address	GCollier@scsengineers.com	e-Mail Address	kkuntz@scsengineers.com

A	pH_W_9040C (9040 pH)
B	9056_anions_W (9056 Cl, F, SO4)
C	TDS_W 2540C (2540C TDS)
D	ICP_TW (6020 B, Ca)
E	
F	
G	
H	
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	BW-1	12/15/21	15:35	Groundwa	2,8	2	X	X	X	X							
2	MW-1	12/15/21	15:45	Groundwa	2,8	2	X	X	X	X							
3	MW-2	12/15/21	16:25	Groundwa	2,8	2	X	X	X	X							
4	MW-3	12/15/21	16:55	Groundwa	2,8	2	X	X	X	X							
5	DUP	12/15/21	15:35	Groundwa	2,8	2	X	X	X	X							
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Asher Boudreaux

Shipment Method:

Required Turnaround Time: (Check Box) [X] STD 10 Wk Days [ ] 5 Wk Days [ ] 2 Wk Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by: Asher Boudreaux Date: 12/16/21 Time: 10:25 Received by: —

Relinquished by: — Date: Time: Received by (Laboratory): 12/17/2021 10:50

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

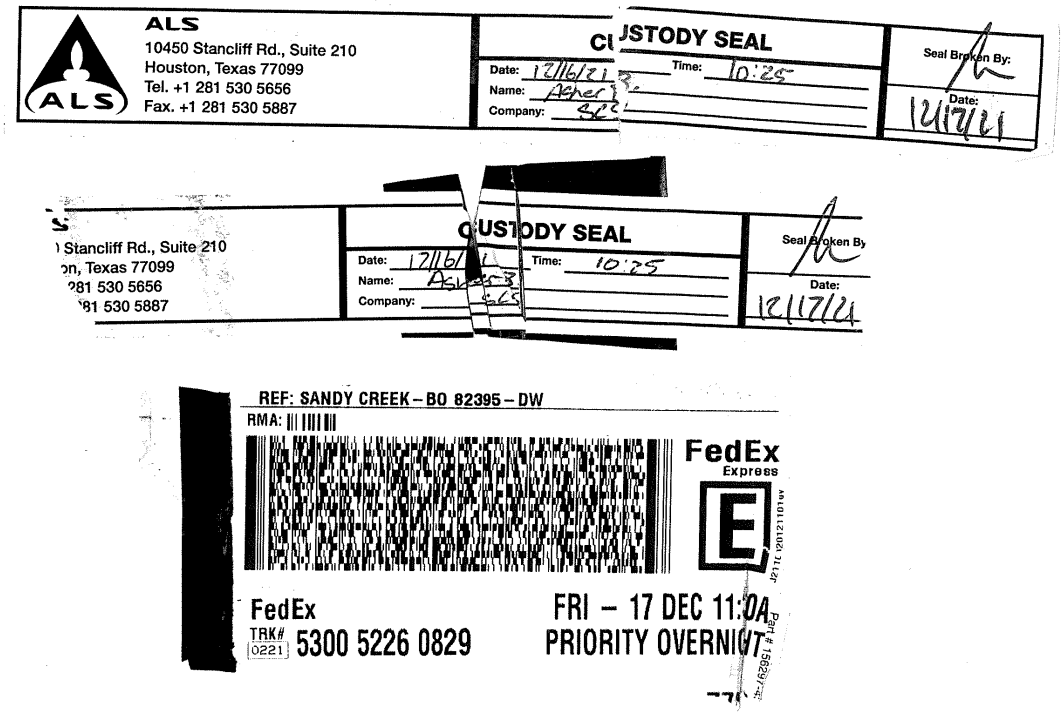
Notes: SCS Sandy Creek

Cooler ID	Cooler Temp.
47515	0.6 1.5 0.3 CL500

QC Package: (Check One Box Below)
- [X] Level II Std QC
- [ ] Level III Std QC/Raw Date
- [ ] Level IV SW846/CLP
- [ ] Other
- [ ] TRRP Checklist
- [ ] TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.


ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
CUSTODY SEAL
Date: 12/16/21
Time: 10:25
Name: Asher
Company:
Seal Broken By:
Date: 12/17/21
Stancliff Rd., Suite 210
Houston, Texas 77099
281 530 5656
281 530 5887
CUSTODY SEAL
Date: 12/16/21
Time: 10:25
Name: Asher
Company: ALS
Seal Broken By
Date: 12/17/21
REF: SANDY CREEK – BO 82395 – DW
RMA:
FedEx
Express
FedEx
TRK# 0221 5300 5226 0829
FRI – 17 DEC 11:0A
PRIORITY OVERNIGHT

Appendix C
Historical Groundwater Analytical Data

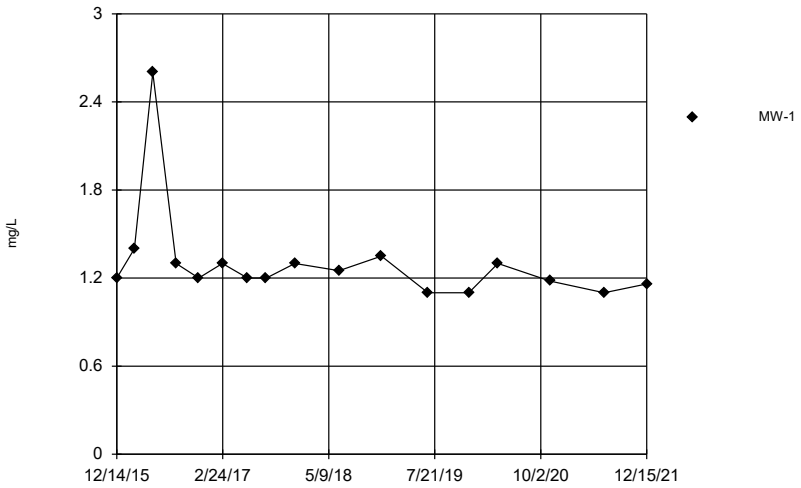
APPENDIX C - GROUNDWATER ANALYTICAL DATA
2021 ANNUAL GROUNDWATER MONITORING REPORT
SANDY CREEK ENERGY STATION
2161 RATTLESNAKE ROAD
RIESEL, TX 76682

	Water Level	Conductivity	Boron	Calcium	Chloride	pH at 25°C	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium-226	Radium-228	Combined Radium	Fluoride
Units	**ft msl**	**mS/cm**	**mg/L**	**mg/L**	**mg/L**	**Std. Units**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**pCi/L**	**pCi/L**	**pCi/L**	**mg/L**
MW-1																									
12/14/2015	**453.53**	**4.51**	**1.2**	**454**	**253**	**7.6**	**2090**	**4090**	<0.0010	<0.0050	**0.044**	<0.0010	<0.0010	**0.0073**	<0.0025	<0.0050	**0.43**	<0.00020	<0.010	**0.16**	<0.00050	**1.04 ± 0.838**	**1.09 ± 0.523**	**2.13**	<0.30
2/25/2016	**453.38**	**4.98**	**1.4**	**520**	**236**	**7.5**	**2190**	**4060**	<0.0010	<0.0050	**0.033**	<0.0010	<0.0010	**0.0074**	<0.0025	**0.0084**	**0.39**	<0.00020	<0.010	**0.2**	<0.00050	**0.922 ± 0.720**	**1.46 ± 0.496**	**2.382**	<0.30
5/11/2016	**454.14**	**4.83**	**2.6**	**1030**	**402**	**7.2**	**2580**	**5260**	<0.0010	**0.12**	**1**	**0.029**	<0.0020	**0.69**	**0.087**	**0.21**	**0.78**	<0.00020	<0.020	**0.039**	**0.00089**	**3.94 ± 1.31**	**8.39 ± 1.74**	**12.33**	<0.30
8/16/2016	**453.67**	**4.47**	**1.3**	**535**	**239**	**6.8**	**2300**	**3880**	<0.0010	<0.0050	**0.022**	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	**0.41**	<0.00020	<0.010	**0.13**	<0.00050	**0.593 ± 0.620**	**3.29 ± 0.828**	**3.883**	**0.35**
11/17/2016	**454.43**	**4.45**	**1.2**	**542**	**216**	**7**	**2130**	**3720**	<0.0010	<0.0050	**0.018**	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	**0.37**	<0.00020	<0.020	**0.16**	<0.00050	**0.338 ± 0.339**	**2.49 ± 0.783**	**2.828**	<0.30
2/23/2017	**454.72**	**5.08**	**1.3**	**531**	**223**	**7**	**2350**	**3980**	<0.0010	<0.010	<0.20	<0.0050	<0.0050	<0.010	<0.010	<0.0050	**0.44**	<0.00020	<0.010	**0.066**	<0.00050	**-0.207 ± 0.945**	**3.13 ± 0.908**	**2.923**	<0.30
6/7/2017	**454.42**	**4.77**	**1.2**	**530**	**203**	**7.5**	**2010**	**3680**	<0.0010	<0.0050	**0.019**	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	**0.36**	<0.00020	<0.020	**0.15**	<0.00050	**0.000 ± 0.449**	**1.30 ± 0.518**	**1.3**	<0.30
8/24/2017	**454.69**	**4.58**	**1.2**	**518**	**241**	**7.1**	**2620**	**4550**	<0.0010	<0.0050	**0.02**	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	**0.395**	<0.00020	<0.020	**0.17**	<0.00050	**0.577 ± 0.429**	**1.69 ± 0.634**	**2.267**	**0.4**
12/20/2017	**454.22**	**4.287**	**1.3**	**548**	**248**	**7.4**	**2340**	**4250**	<0.0010	<0.0060	**0.017**	<0.0010	<0.0050	<0.0070	<0.0025	<0.010	**0.38**	<0.00020	<0.030	**0.18**	<0.00050	**1.26 ± 0.680**	**2.46 ± 0.888**	**3.72**	**1.1**
6/21/2018	**453.85**	**4.67**	**1.25**	**587**	**247**	**7.38**	**2530**	**4270**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**0.3 J**
12/13/2018	**454.86**	**4.369**	**1.35**	**515**	**241**	**7.52**	**2570**	**4100**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**0.585**
6/24/2019	**455.38**	**4.142**	**1.1**	**492**	**169**	**7.2**	**2430**	**4030**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**0.73**
12/10/2019	**453.99**	**4.278**	**1.1**	**534**	**192**	**7.43**	**2420**	**3720**	n/a	**0.000667**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**0.0809**	n/a	n/a	n/a	n/a	**0.236**
4/8/2020	**454.99**	**4.66**	**1.3**	**524**	**152**	**7.1**	**2430**	**4330**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.20**
11/10/2020	**454.45**	**4.73**	**1.18**	**539**	**168**	**7.2**	**2350**	**4060**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**0.26 J**
6/22/2021	**455.29**	**4.32**	**1.1**	**510**	**161**	**7.19**	**2470**	**3830**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.20**
12/15/2021	**455.13**	**4.45**	**1.16**	**534**	**144**	**7.15**	**2360**	**3940**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**0.271**
MW-2																									
12/14/2015	**424.11**	**10.6**	**1.9**	**569**	**1890**	**6.7**	**2810**	**8520**	<0.0010	<0.0050	**0.031**	<0.0010	<0.0010	<0.0050	**0.0061**	<0.0050	**0.69**	<0.00020	<0.010	<0.010	<0.00050	**1.41 ± 0.938**	**2.76 ± 0.771**	**4.17**	**0.98**
2/25/2016	**429.50**	**11.3**	**2.4**	**697**	**2080**	**7.3**	**2890**	**8070**	<0.0010	**0.014**	**0.038**	<0.0010	<0.0010	<0.0050	<0.011	<0.0050	**0.74**	<0.00020	<0.010	<0.010	<0.00050	**0.857 ± 0.590**	**2.57 ± 0.665**	**3.427**	<0.30
5/11/2016	**430.72**	**10.8**	**2.2**	**613**	**2340**	**6.7**	**3010**	**9930**	<0.0010	**0.0059**	**0.027**	<0.0010	<0.0010	<0.0050	**0.0079**	<0.0050	**0.87**	<0.00020	<0.010	<0.010	<0.00050	**0.859 ± 0.561**	**3.13 ± 0.822**	**3.989**	<0.30
8/16/2016	**430.78**	**11.9**	**2.1**	**680**	**2440**	**6.7**	**3080**	**7870**	<0.0020	<0.0050	**0.021**	<0.0010	<0.0010	<0.0050	**0.0084**	<0.0050	**0.84**	<0.00020	<0.010	<0.010	<0.0010	**0.237 ± 0.329**	**3.28 ± 0.775**	**3.517**	**0.64**
11/17/2016	**430.80**	**10.7**	**1.9**	**701**	**2140**	**6.7**	**2770**	**9680**	<0.0010	**0.0059**	**0.024**	<0.0010	<0.0010	<0.0050	**0.0064**	<0.0050	**0.82**	<0.00020	**0.024**	<0.010	<0.00050	**0.923 ± 0.594**	**3.16 ± 0.826**	**4.083**	**0.35**
2/23/2017	**430.85**	**13.7**	**1.9**	**646**	**2320**	**6.9**	**3110**	**9630**	<0.0010	<0.010	<0.20	<0.0050	<0.0050	<0.010	<0.010	<0.0050	**0.8**	<0.00020	<0.010	<0.020	<0.00050	**1.52 ± 1.50**	**4.27 ± 1.07**	**5.79**	**0.46**
6/7/2017	**431.12**	**11**	**1.9**	**640**	**2420**	**7.5**	**2970**	**14200**	<0.0010	<0.0050	**0.016**	<0.0010	<0.0010	<0.0050	**0.0051**	<0.0050	**0.75**	<0.00020	<0.020	<0.010	<0.00050	**0.344 ± 0.415**	**3.82 ± 0.931**	**4.164**	**1.3**
8/24/2017	**431.20**	**11.4**	**1.9**	**664**	**2520**	**6.8**	**3710**	**9600**	<0.0010	<0.010	**0.017**	<0.0010	<0.0020	<0.0050	**0.0065**	<0.010	**0.729**	<0.00020	<0.020	**0.026**	<0.00050	**1.12 ± 0.610**	**3.78 ± 0.960**	**4.9**	**0.32**
12/20/2017	**429.47**	**6.198**	**2.2**	**716**	**2590**	**7.2**	**3100**	**9600**	<0.0010	<0.012	**0.022**	<0.0010	<0.010	<0.014	**0.0072**	<0.020	**0.74**	<0.00020	<0.030	<0.040	<0.00050	**0.945 ± 0.578**	**4.07 ± 0.940**	**5.015**	<0.50
6/21/2018	**430.02**	**12.66**	**1.9**	**706**	**2840**	**7.09**	**3400**	**10200**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.6
12/13/2018	**430.72**	**11.89**	**2.58**	**690**	**2740**	**6.71**	**3220**	**10500**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**0.618**
6/24/2019	**432.28**	**10.77**	**1.7**	**656**	**2420**	**7.0**	**3480**	**9560**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.18
12/10/2019	**430.19**	**8.676**	**1.48**	**660**	**2180**	**6.93**	**2620**	**8120**	n/a	**0.00219**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.010	n/a	n/a	n/a	n/a	**0.229**
4/8/2020	**430.07**	**13**	**1.9**	**650**	**2410**	**6.8**	**3120**	**9820**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.20**
11/10/2020	**430.96**	**13.7**	**2.13**	**715**	**2350**	**6.8**	**2830**	**9670**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.20**
6/22/2021	**431.88**	**11.3**	**1.83**	**704**	**2780**	**6.82**	**3370**	**9500**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.20**
12/15/2021	**430.79**	**12**	**2.02**	**656**	**2350**	**6.83**	**2970**	**8780**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**0.254**
MW-3																									
12/14/2015	**421.77**	**1.17**	**0.35**	**67.6**	**12.3**	**7.2**	**135**	**586**	<0.0010	<0.0050	**0.021**	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	<0.050	<0.00020	<0.010	<0.010	<0.00050	**0.997 ± 0.813**	**0.736 ± 0.505**	**1.733**	**0.62**
2/25/2016	**421.66**	**6.04**	**1.2**	**479**	**347**	**7**	**2430**	**5400**	<0.0010	**0.0061**	**0.052**	<0.0010	<0.0010	<0.0050	**0.0098**	<0.0050	**0.85**	<0.00020	<0.010	<0.010	<0.00050	**1.26 ± 0.762**	**3.02 ± 0.791**	**4.28**	**0.9**
5/11/2016	**421.94**	**3.82**	**1.1**	**465**	**349**	**6.5**	**2330**	**5440**	<0.0010	<0.0050	**0.024**	<0.0010	<0.0010	<0.0050	**0.0059**	<0.0050	**0.65**	<0.00020	<0.010	<0.010	<0.00050	**1.54 ± 0.797**	**1.62 ± 0.547**	**3.16**	<0.30
8/16/2016	**420.42**	**6.01**	**1.2**	**505**	**381**	**7.3**	**2950**	**5680**	<0.0010	<0.0050	**0.018**	<0.0010	<0.0010	<0.0050	**0.006**	<0.0050	**0.98**	<0.00020	<0.010	<0.010	<0.00050	**0.891 ± 0.626**	**5.10 ± 1.13**	**5.991**	<0.30
11/17/2016	**421.03**	**5.43**	**1.1**	**494**	**322**	**6.6**	**2420**	**5420**	<0.0010	<0.0050	**0.028**	<0.0010	<0.0010	<0.0050	**0.0068**	<0.0050	**0.94**	<0.00020	<0.020	<0.010	<0.00050	**0.872 ± .0579**	**5.23 ± 1.30**	**6.102**	<0.30
2/23/2017	**422.58**	**6.79**	**1.1**	**389**	**202**	**7**	**1450**	**2900**	<0.0010	<0.010	<0.20	<0.0050	<0.0050	<0.010	<0.010	<0.0050	**0.7**	<0.00020	<0.010	<0.020	<0.00050	**-0.239 ± 1.09**	**4.07 ± 1.03**	**3.831**	**0.45**
6/7/2017	**422.23**	**3.68**	**1.2**	**486**	**327**	**7.1**	**2260**	**4740**	<0.0010	<0.0050	**0.015**	<0.0010	<0.0010	<0.0050	**0.0058**	<0.0050	**0.62**	<0.00020	<0.020	<0.010	<0.00050	**0.941 ± 0.658**	**2.76 ± 0.765**	**3.701**	**0.57**
8/24/2017	**419.66**	**6.55**	**1.1**	**519**	**401**	**6.5**	**2890**	**6160**	<0.0010	<0.010	**0.014**	<0.0010	<0.0020	<0.0050	**0.0084**	<0.010	**1.03**	<0.00020	<0.020	<0.020	<0.00050	**1.26 ± 0.600**	**4.41 ± 1.07**	**5.67**	<0.30
12/20/2017	**421.08**	**6.459**	**1.3**	**563**	**380**	**6.8**	**2830**	**5790**	<0.0010	<0.0060	**0.034**	<0.0010	<0.0050	<0.0070	**0.0086**	<0.010	**0.92**	<0.00020	<0.030	<0.020	<0.00050	**0.626 ± 0.567**	**2.77 ± 0.728**	**3.396**	**0.61**
6/21/2018	**418.68**	**6.633**	**1.13**	**526**	**396**	**6.76**	**3160**	**6090**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.3
12/13/2018	**422.36**	**4.47**	**1.08**	**327**	**206**	**6.61**	**1790**	**3520**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**0.662**
6/24/2019	**423.00**	**5.659**	**0.99**	**452**	**306**	**6.6**	**3130**	**5740**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.18
12/10/2019	**419.87**	**6.189**	**1.26**	**572**	**345**	**6.67**	**3140**	**5830**	n/a	**0.0024**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.010	n/a	n/a	n/a	n/a	**0.137**
4/8/2020	**422.06**	**6.46**	**1.1**	**530**	**307**	**6.5**	**3020**	**5980**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.20**
11/10/2020	**420.03**	**7.21**	**3.07**	**597**	**1160**	**7.1**	**2950**	**6920**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.20**
6/22/2021	**421.46**	**6.06**	**1.02**	**469**	**300**	**6.77**	**3170**	**5080**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.20**
12/15/2021	**420.96**	**6.71**	**1.24**	**518**	**318**	**6.54**	**2970**	**5500**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.50**
BW-1																									
12/14/2015	**465.60**	**5.35**	**1.8**	**465**	**727**	**9.5**	**2130**	**4900**	<0.0010	<0.0050	**0.17**	<0.0010	<0.0010	**0.015**	**0.0026**	<0.0050	**0.7**	<0.00020	<0.010	<0.010	**0.00073**	**0.900 ± 0.728**	**1.13 ± 0.513**	**2.03**	<0.30
2/25/2016	**465.44**	**5.8**	**3.5**	**586**	**1050**	**7.4**	**2690**	**6420**	<0.0010	**0.015**	**0.055**	<0.0010	<0.0010	**0.0053**	**0.0035**	**0.0069**	**0.71**	<0.00020	<0.010	<0.010	<0.00050	**0.887 ± 0.697**	**1.82 ± 0.541**	**2.707**	**0.67**
5/11/2016	**465.56**	**7.5**	**4**	**566**	**1120**	**7**	**2610**	**6360**	<0.0010	**0.0084**	**0.04**	<0.0010	<0.0010	**0.011**	**0.0035**	**0.0091**	**0.79**	<0.00020	<0.010	<0.010	<0.00050	**2.40 ± 0.944**	**2.80 ± 0.710**	**5.2**	**0.32**
8/16/2016	**465.71**	**7.52**	**3.7**	**566**	**1130**	**7.2**	**2720**	**6280**	<0.0010	**0.0064**	**0.04**	<0.0010	<0.0010	**0.0073**	**0.0029**	<0.0050	**0.78**	<0.00020	<0.010	<0.010	<0.00050	**0.610 ± 0.483**	**3.42 ± 0.777**	**4.03**	**0.94**
11/17/2016	**466.12**	**7.36**	**2.8**	**548**	**991**	**6.8**	**2590**	**6400**	<0.0010	**0.0066**	**0.023**	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	**0.74**	<0.00020	**0.022**	<0.010	<0.00050	**0.605 ± 0.548**	**2.94 ± 0.799**	**3.545**	**0.85**
2/23/2017	**466.57**	**7.17**	**3.1**	**532**	**1080**	**7.2**	**2760**	**6280**	<0.0010	<0.010	<0.20	<0.0050	<0.0050	<0.010	<0.010	<0.0050	**0.73**	<0.00020	<0.010	<0.020	<0.00050	**0.816 ± .0983**	**4.07 ± 1.08**	**4.886**	<0.30
6/7/2017	**466.17**	**7.58**	**3.8**	**539**	**1020**	**7.7**	**2220**	**7320**	<0.0010	<0.0050	**0.026**	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	**0.79**	<0.00020	<0.020	<0.010	<0.00050	**1.36 ± 0.685**	**3.13 ± 0.783**	**4.49**	<0.30
8/24/2017	**466.38**	**7.81**	**3.4**	**531**	**1160**	**7.1**	**2870**	**7260**	<0.0010	<0.010	**0.037**	<0.0010	<0.0020	<0.0050	<0.0050	<0.010	**0.738**	<0.00020	<0.020	<0.020	<0.00050	**1.58 ± 0.602**	**2.80 ± 0.759**	**4.38**	**0.37**
12/20/2017	**466.51**	**7.063**	**3.5**	**658**	**1030**	**7.2**	**2620**	**6140**	<0.0010	<0.0060	**0.044**	<0.0010	<0.0050	<0.0070	**0.0034**	<0.010	**0.73**	<0.00020	<0.030	<0.020	<0.00050	**1.07 ± 0.681**	**3.13 ± 0.788**	**4.2**	<0.50
6/21/2018	**466.13**	**7.755**	**3.31**	**610**	**1200**	**7.22**	**3030**	**6640**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.3
12/13/2018	**467.24**	**7.159**	**3.25**	**637**	**1120**	**7.1**	**2780**	**6400**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**0.586**
6/24/2019	**467.37**	**7.21**	**3.1**	**564**	**1160**	**7.1**	**2930**	**6380**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**0.9**
12/10/2019	**467.39**	**6.612**	**2.98**	**591**	**1150**	**7.11**	**2830**	**6300**	n/a	**0.00236**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.010**	n/a	n/a	n/a	n/a	**0.309**
4/8/2020	**467.63**	**8.15**	**3.7**	**545**	**1070**	**6.9**	**2760**	**6660**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.20**
11/10/2020	**468.39**	**8.28**	**3.14**	**612**	**1170**	**7.1**	**2710**	**6000**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.20**
6/22/2021	**468.37**	**7.54**	**3.39**	**607**	**1290**	**7.05**	**3170**	**6560**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**0.512**
12/15/2021	**468.76**	**8.31**	**3.36**	**616**	**1140**	**6.92**	**2820**	**6380**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**<0.50**

40 CFR 257 Appendix III Constituent
40 CFR 257 Appendix IV Constituent
40 CFR 257 Appendix III & IV Constituent
"<" - Indicates analyte was not detected above the laboratory reporting limit
"J" Indicates value is above method detection limit (MDL) but below laboratory reporting limit
ND- indicates constituent was non-detect

Appendix D
Time Series Graphs

Time Series

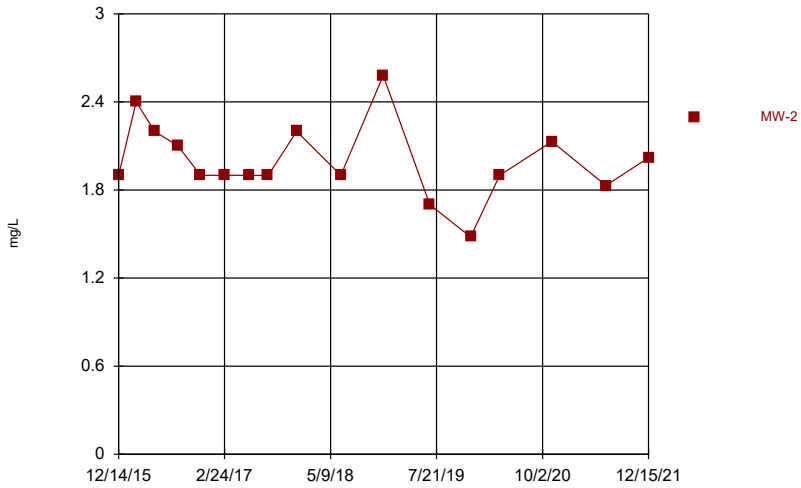


Constituent: Boron Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

Time Series

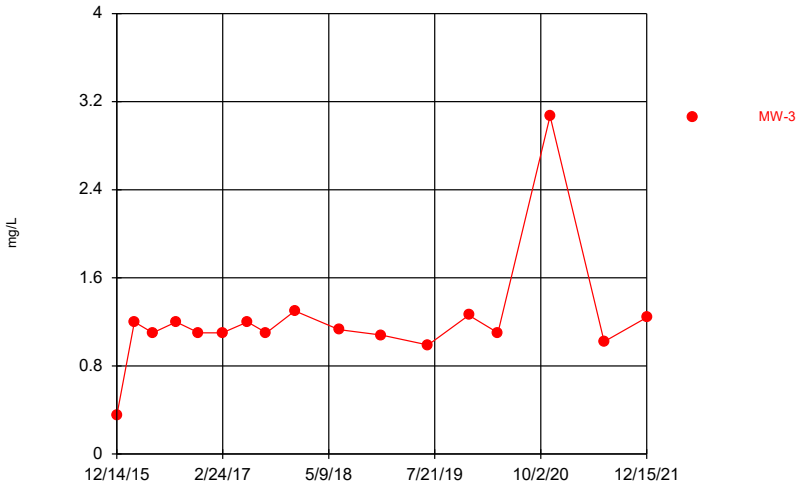


Constituent: Boron Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

Time Series

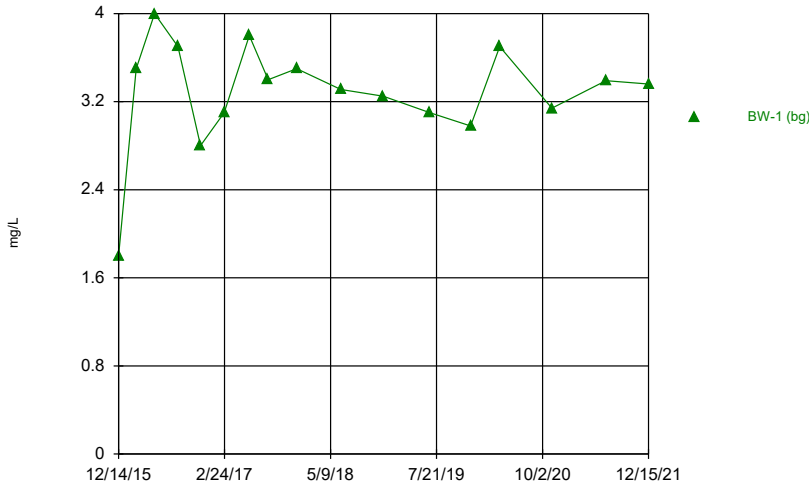


Constituent: Boron Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

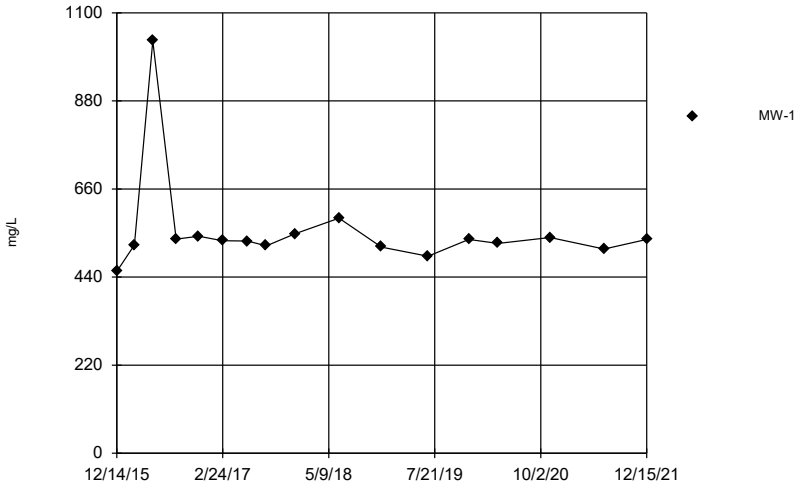
Time Series



Constituent: Boron Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Time Series

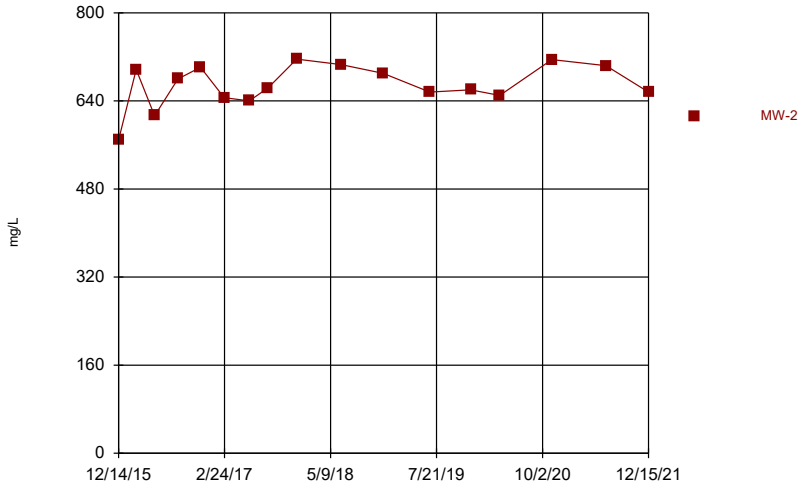


Constituent: Calcium Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

Time Series

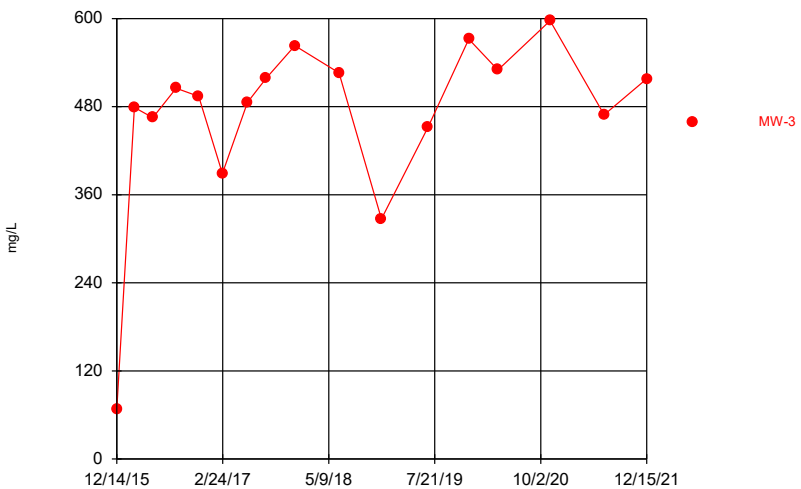


Constituent: Calcium Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

Time Series

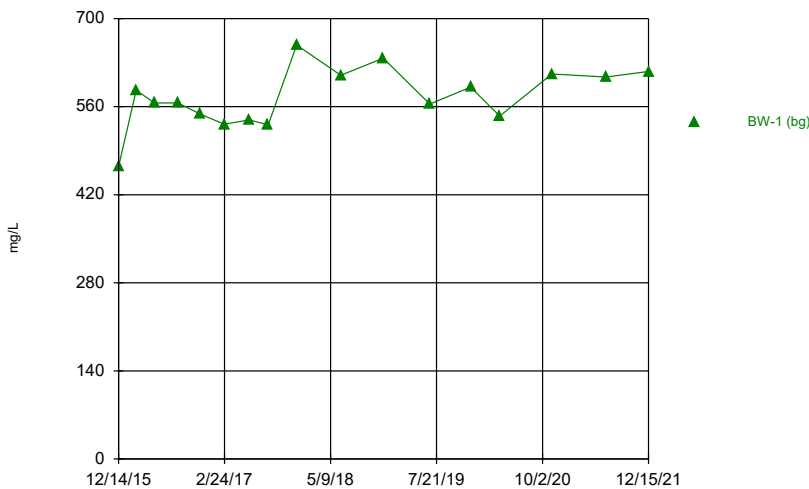


Constituent: Calcium Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

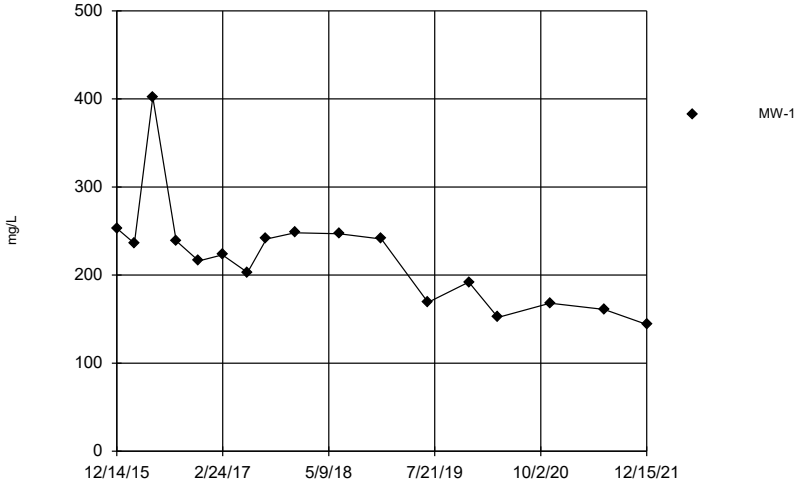
Time Series



Constituent: Calcium Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Time Series

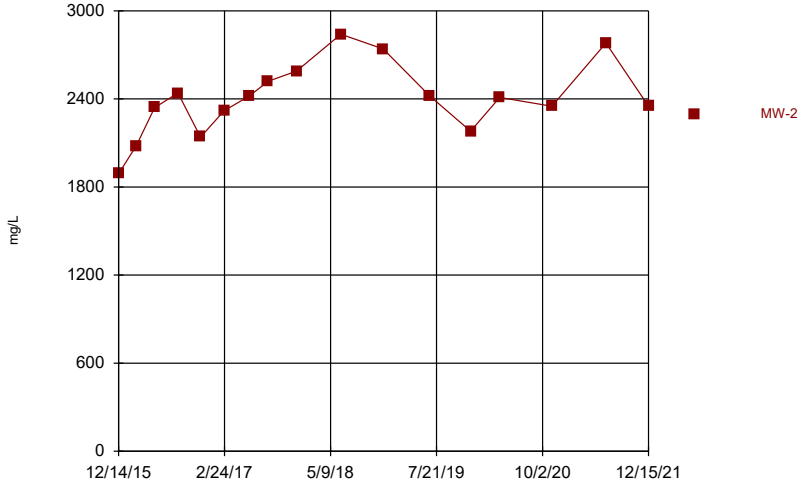


Constituent: Chloride Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

Time Series

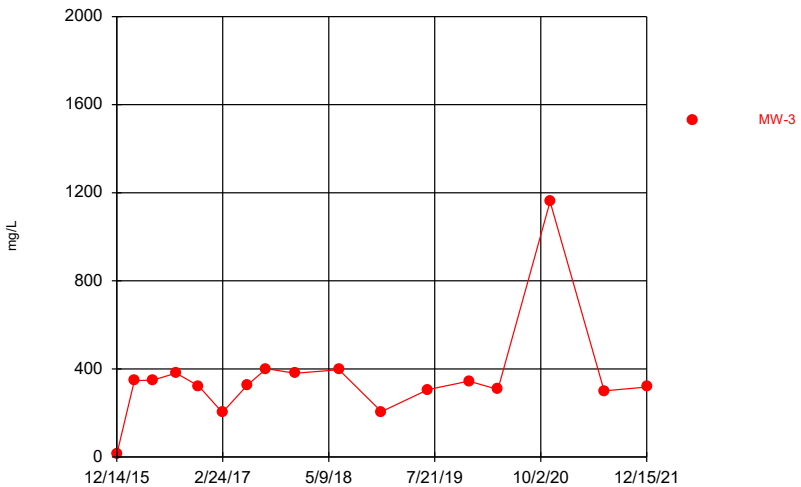


Constituent: Chloride Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

Time Series

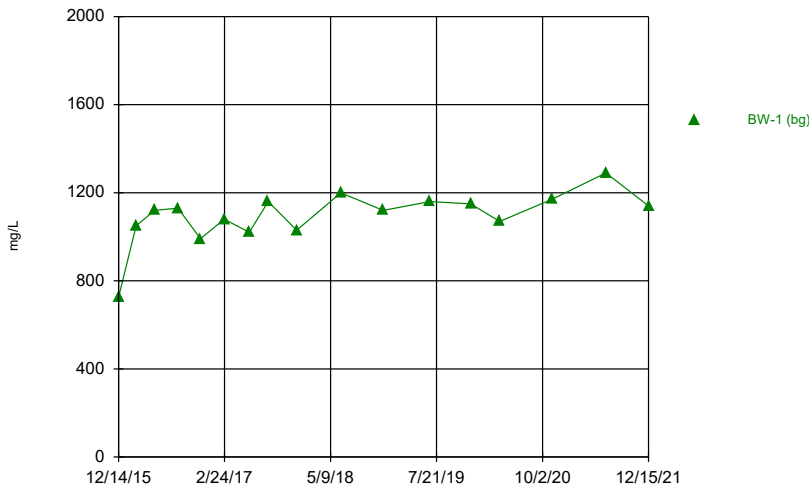


Constituent: Chloride Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

Time Series

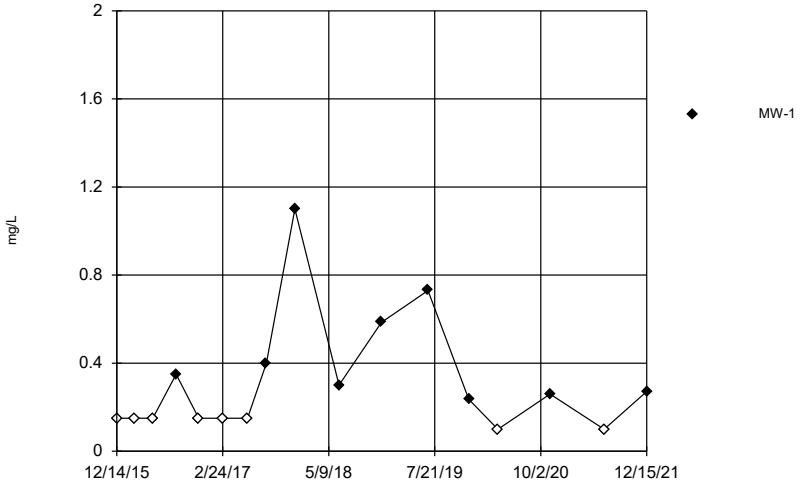


Constituent: Chloride Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

Time Series

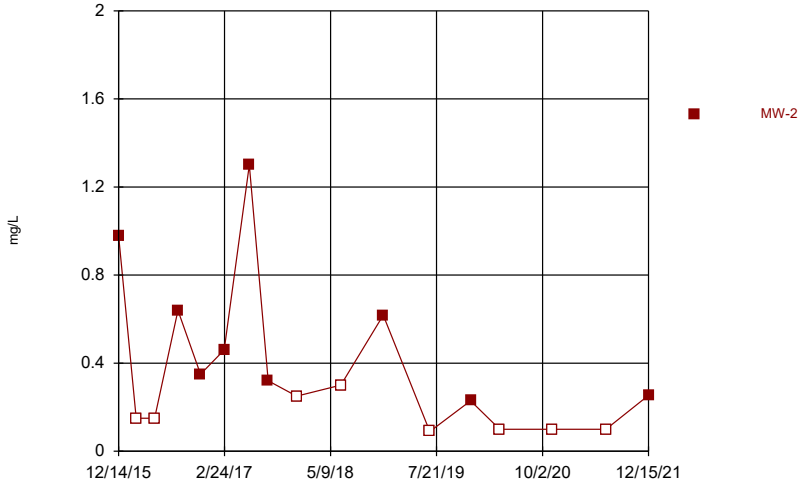


Constituent: Fluoride Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

Time Series

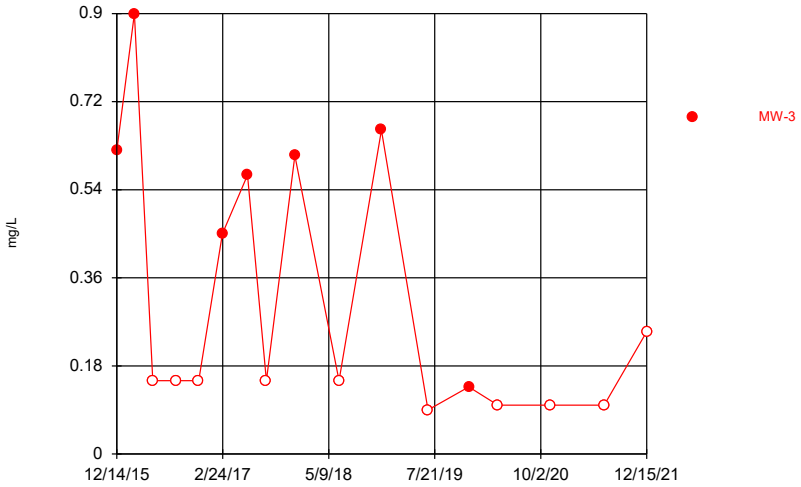


Constituent: Fluoride Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

Time Series

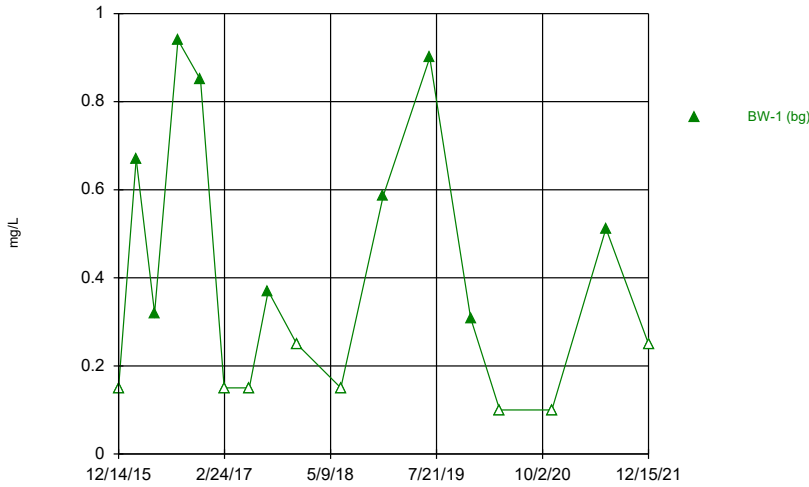


Constituent: Fluoride Analysis Run 2/11/2022 4:11 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

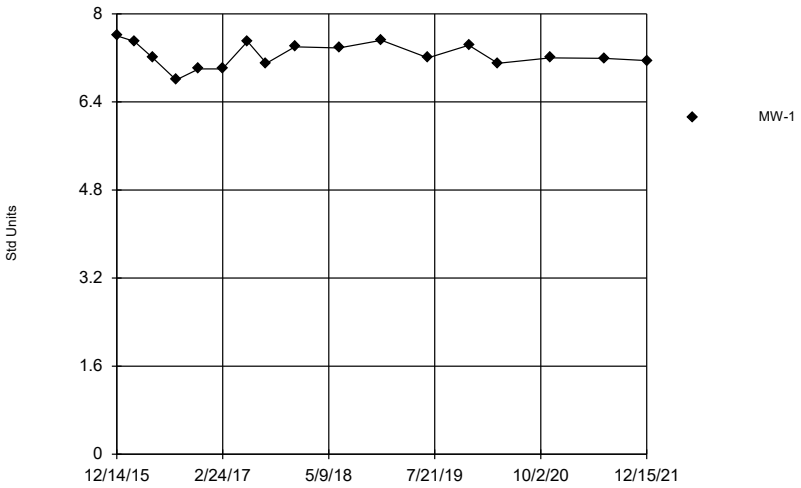
Time Series



Constituent: Fluoride Analysis Run 2/11/2022 4:12 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Time Series

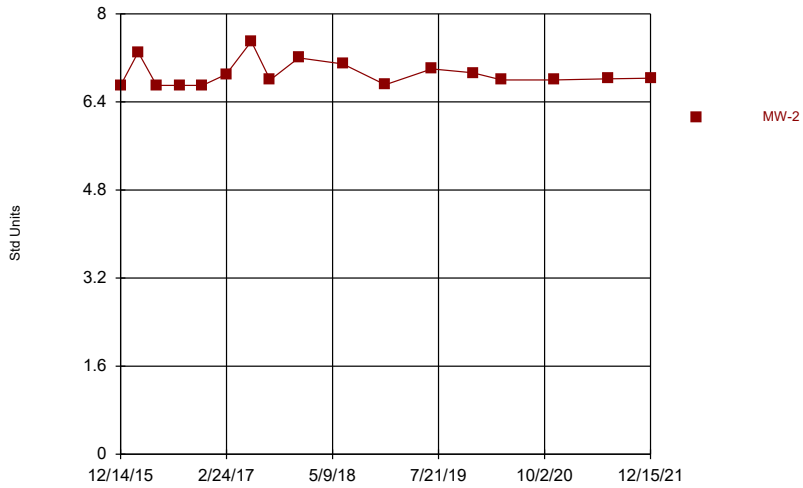


Constituent: pH Analysis Run 2/11/2022 4:12 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

Time Series

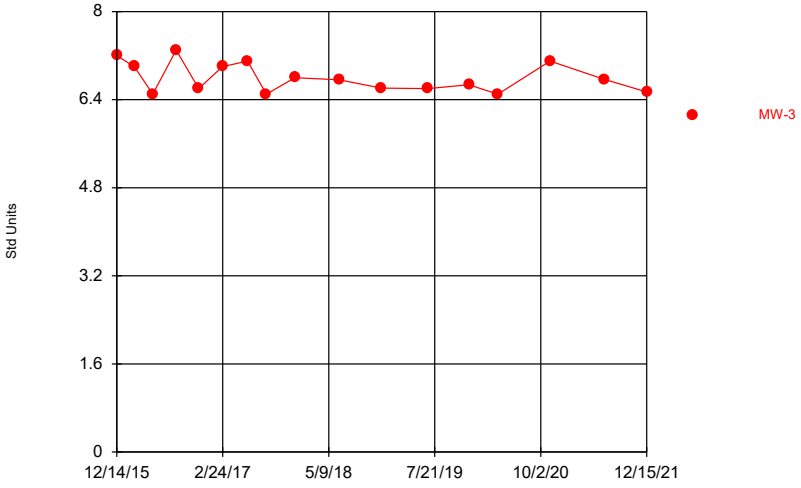


Constituent: pH Analysis Run 2/11/2022 4:12 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

Time Series

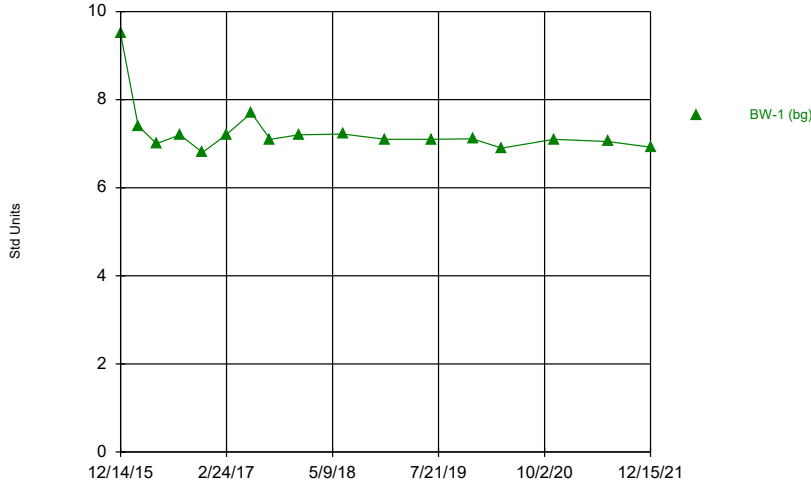


Constituent: pH Analysis Run 2/11/2022 4:12 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

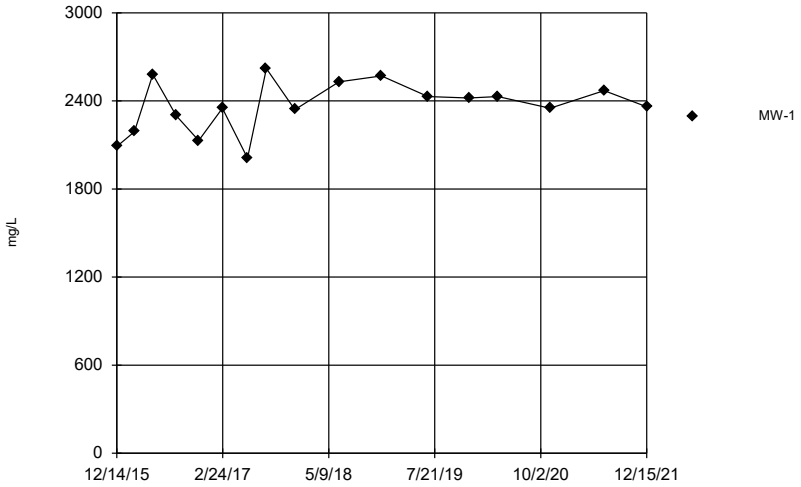
Time Series



Constituent: pH Analysis Run 2/11/2022 4:12 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Time Series

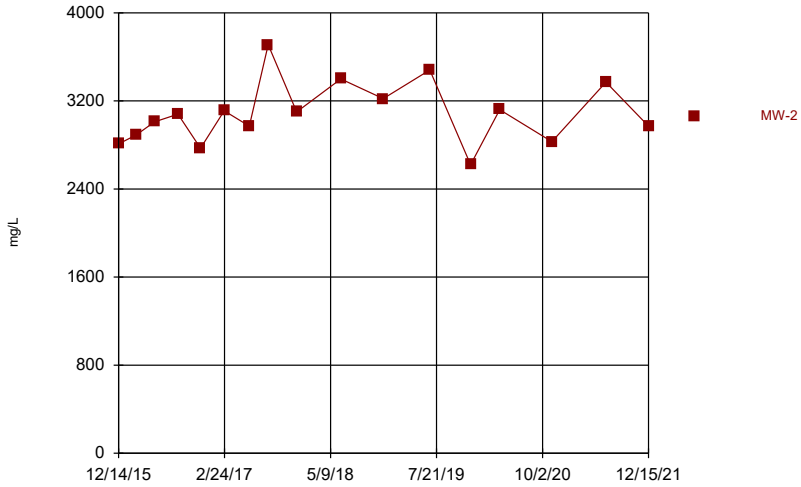


Constituent: Sulfate Analysis Run 2/11/2022 4:12 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

Time Series



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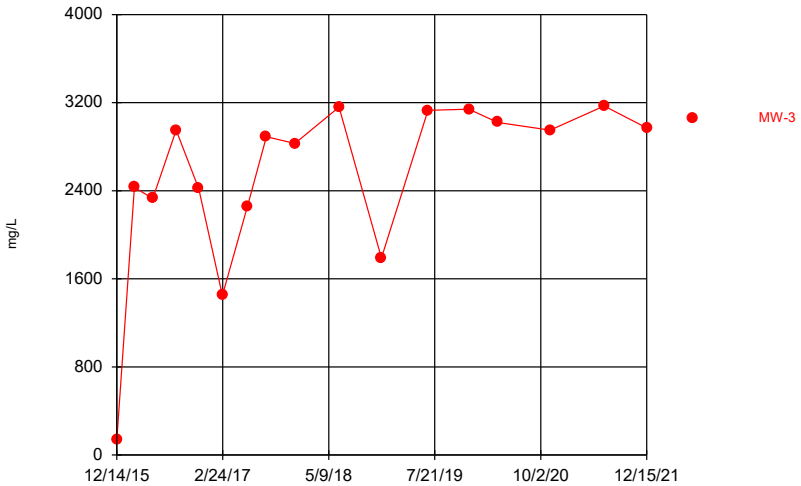

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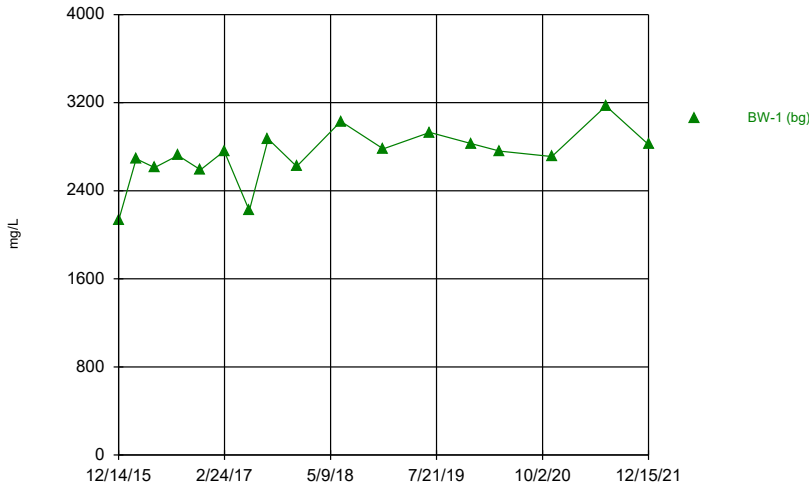

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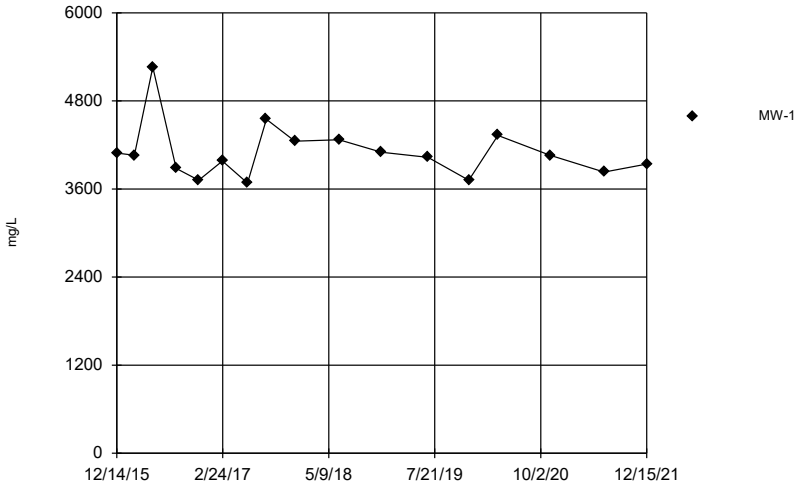

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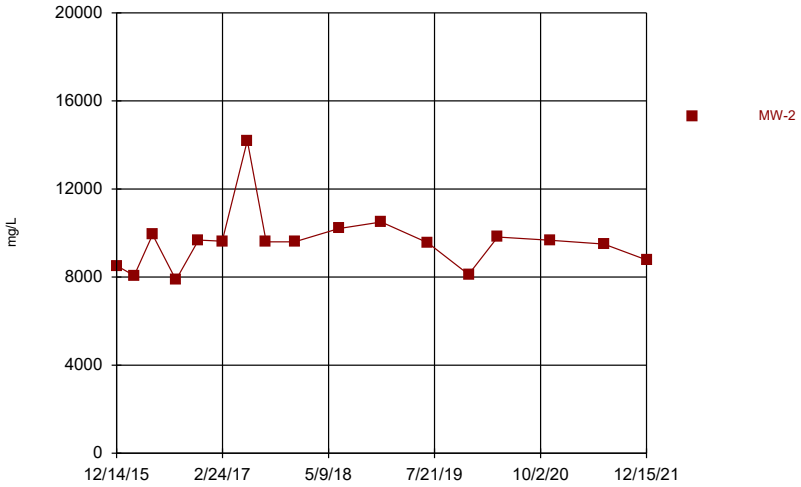
Time Series



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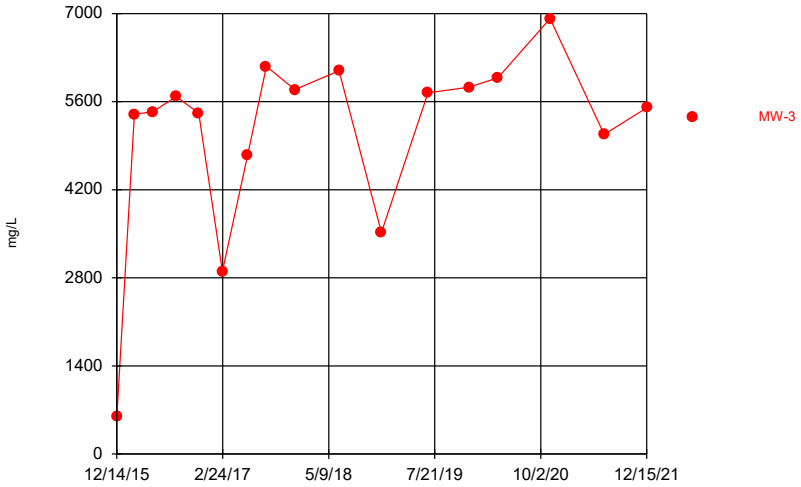
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

Time Series



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Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. EPA

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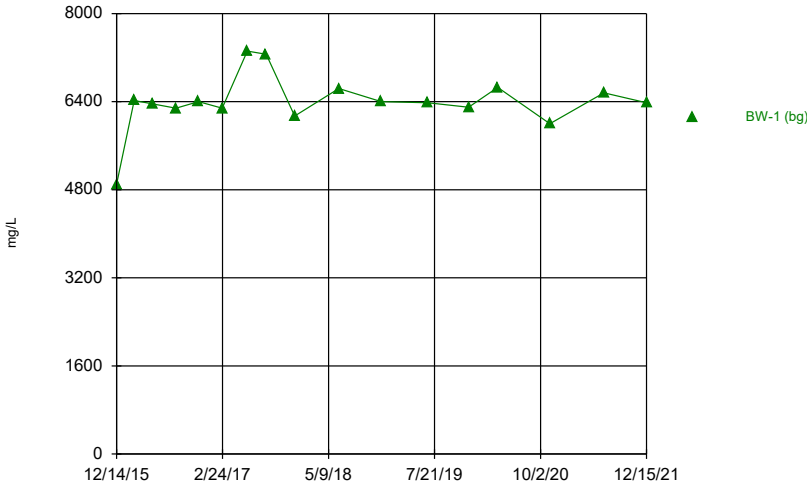


Constituent: Total Dissolved Solids Analysis Run 2/11/2022 4:12 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Appendix E
2021 Alternate Source Demonstration

March 4, 2022
SCS Project 16221022.00

Mr. Darryl Sparks
Compliance Manager
NAES Corporation
2161 Rattlesnake Road
Riesel, Texas 76682

Subject: Alternate Source Demonstration for Boron in MW-3
2021 Annual Groundwater Monitoring Report
Sandy Creek Energy Station
McLennan County, Texas

Dear Mr. Sparks:

On behalf of the Sandy Creek Energy Station (SCES), SCS Engineers (SCS) is submitting this Alternate Source Demonstration (ASD) in accordance with the site Groundwater Sampling and Analysis Plan (GWSAP) prepared by SCS, dated March 2, 2016, and Coal Combustion Residual Rule Title 40 Code of Federal Regulations (CFR) §257.94(e)(2) for a boron detection in groundwater monitoring well MW-3. During the December 2021 groundwater monitoring event, boron was detected in MW-3 at 1.24 mg/L, above the statistical limit of 1.2 mg/L. This ASD was conducted to investigate the likely source of the boron detection. In accordance with 40 CFR §257.94(e)(2), this ASD is being submitted within 90 days of detecting an unconfirmed statistically significant increase (SSI) above background values.

Project Background

SCES is a pulverized coal-fired electric generation facility which operates a landfill for disposal of dry scrubber ash and bottom ash generated during the coal combustion process at the facility. Incidental wastes generated during the operation of the facility may also be disposed in the landfill, as described in the initial registration notification to TCEQ and the most recent version of the Operations Plan for the facility. The landfill is currently comprised of CCR disposal cells, Cells 1 and 2, which commenced receiving waste in early 2013 and October 2014, respectively. Additionally, a portion of Cell 3 (includes subcells 2A through 3D) was constructed in 2021. The approximate area of currently constructed Cells 1, 2, and 3 are 10.0, 14.3, and 10.3 acres, respectively.

Sampling of groundwater monitoring wells is conducted in accordance with 40 CFR §257.93, 30 TAC 352.931, and the GWSAP. Groundwater monitoring of six wells must be performed (BW-1, MW-1, MW-2, MW-3, MW-4, MW-5; as depicted on Figure 1).

In accordance with 40 CFR §257.94(b), quarterly background monitoring must be performed for each well for eight consecutive quarters (i.e., eight independent samples collected for each well). The Appendix III and IV constituents monitored during the first eight quarters and the first semiannual detection monitoring event include 18 inorganic compounds, total dissolved solids, radium-226, and radium-228. The constituents monitored in subsequent events and during the December 2021 semiannual detection monitoring event include Appendix III constituents only. Monitoring wells MW-4 and MW-5 are currently in background monitoring and a quarterly background monitoring report will be sent concurrently with this report. Initial background monitoring for monitoring wells MW-1, MW-2,

MW-3, and BW-1 commenced in December 2015 and was completed in August 2017. MW-1, MW-2, MW-3, and BW-1 are currently in detection monitoring.

December 2021 Boron Detection

Boron was detected in MW-3 at a concentration of 1.24 mg/L during the December 2021 annual groundwater monitoring event.

Statistical Analysis

Initial statistical analysis of boron in MW-3 included the use of a non-parametric prediction limit, using background data collected from MW-3. This test is appropriate because the background data pool for boron in MW-3 is non-normally distributed. Therefore, the intrawell statistical limit is represented as the highest of the eight background values from boron in MW-3 (see "Intrawell Limit" in Table 1).

Since the December 2021 laboratory result for boron in MW-3 exceeded its respective intrawell limit, additional statistical evaluation was performed in accordance with 40 CFR §257.94(e)(2). This additional analysis consisted of calculating an interwell parametric prediction limit (see "Interwell Limit" in Table 1 and attachments). This test is commonly used to provide a comparison between a detection in a downgradient monitoring well and a statistical limit derived from background data from one or more upgradient monitoring wells. If the detection falls below the interwell statistical limit, this is evidence that the detection is representative of background data.

Table 1 – December 2021 Unconfirmed SSIs (mg/L)

MW- ID	Constituent	Lab Result	Intrawell Limit	Interwell Limit
MW-3	Boron	1.24	1.2	4.029

Conclusion

As a result of this analysis comparing upgradient to downgradient data, the interwell statistical limit is higher than the December 2021 laboratory result for boron in MW-3. Attached are the interwell statistical graph and data, demonstrating the comparison between the upgradient and downgradient wells. The detection appears to be coming from a non-landfill, upgradient source. SCS proposes no further action is necessary.

Closing

SCS recommends that the facility remain in detection monitoring, in accordance with 40 CFR §257.94, as these ASDs satisfy the 90-day demonstration period requirement outlined in 40 CFR §257.94(e)(2). Please contact Glen Collier at (936) 554-2178 if you have comments or require additional information.

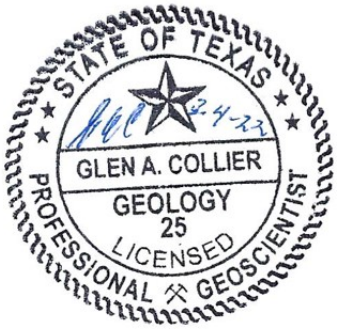
Sincerely,

Asher Boudreaux, G.I.T.
Associate Staff Professional
SCS ENGINEERS
TBPE Registration No. F-3407

Brett DeVries, Ph.D., P.E.
Project Engineer
SCS ENGINEERS

Glen Collier, P.G.
Project Director
SCS ENGINEERS

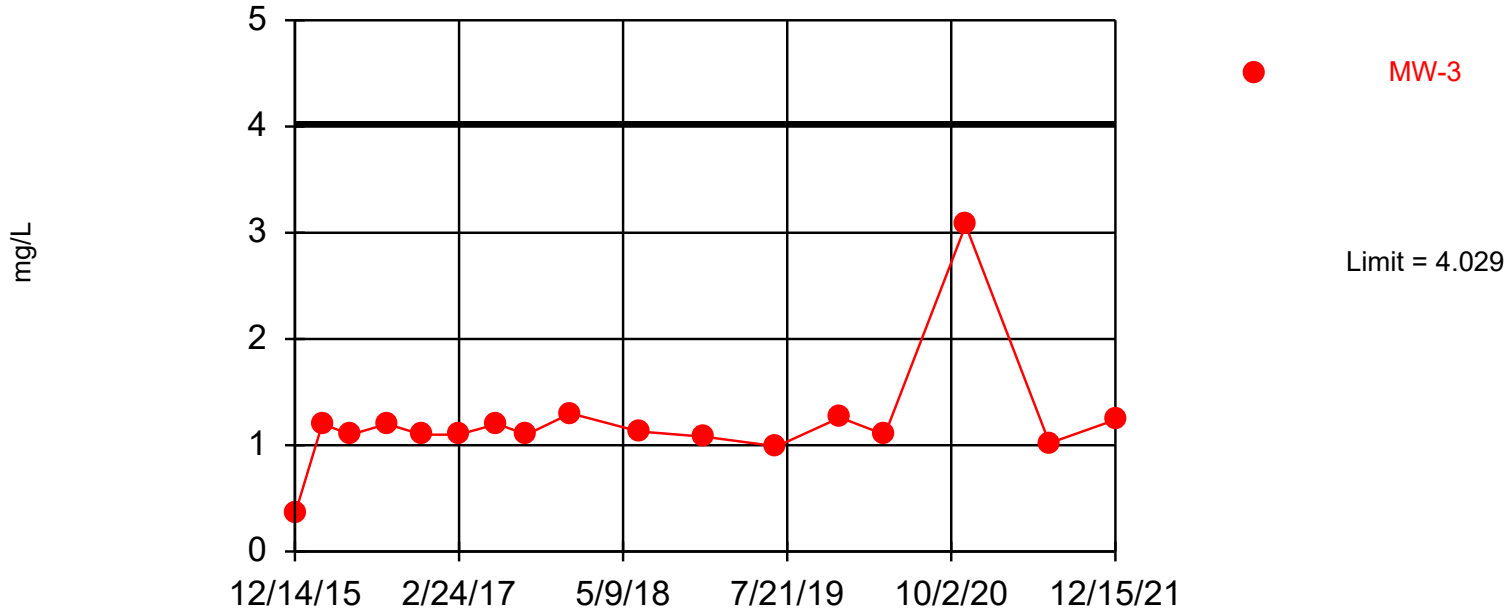
Attachments: Interwell Statistical Graph and Data



Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on square transformation): Mean=11.01, Std. Dev.=2.906, n=17. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9435, critical = 0.892. Report alpha = 0.05. Most recent point compared to limit.

Constituent: Boron Analysis Run 2/11/2022 4:35 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/11/2022 4:36 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata (Sanitas)_12.15.2021

	MW-3	BW-1 (bg)
12/14/2015	0.35	1.8
2/25/2016	1.2	3.5
5/11/2016	1.1	4
8/16/2016	1.2	3.7
11/17/2016	1.1	2.8
2/23/2017	1.1	3.1
6/7/2017	1.2	3.8
8/24/2017	1.1	3.4
12/20/2017	1.3	3.5
6/21/2018	1.13	3.31
12/13/2018	1.08	3.25
6/24/2019	0.99	3.1
12/10/2019	1.26	2.98
4/8/2020	1.1	3.7
11/10/2020	3.07	3.14
6/22/2021	1.02	3.39
12/15/2021	1.24	3.36